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A GUIDE
THROUGH THE
ROYAL PORCELAIN WORKS,
WORCESTER,
WITH THE MARKS ON
WORCESTER PORCELAIN.

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A GUIDE

THROUGH THE

Royal Porcelain Works,

WORCESTER,

AND

An Epitome of the History of

POTTERY AND PORCELAIN

WITH THE

Marks on Worcester Porcelain.

WORCESTER.

1878.

9895



THE PRODUCTIONS
OF
The Royal Porcelain Works

May be obtained of the principal China Dealers
throughout the World.

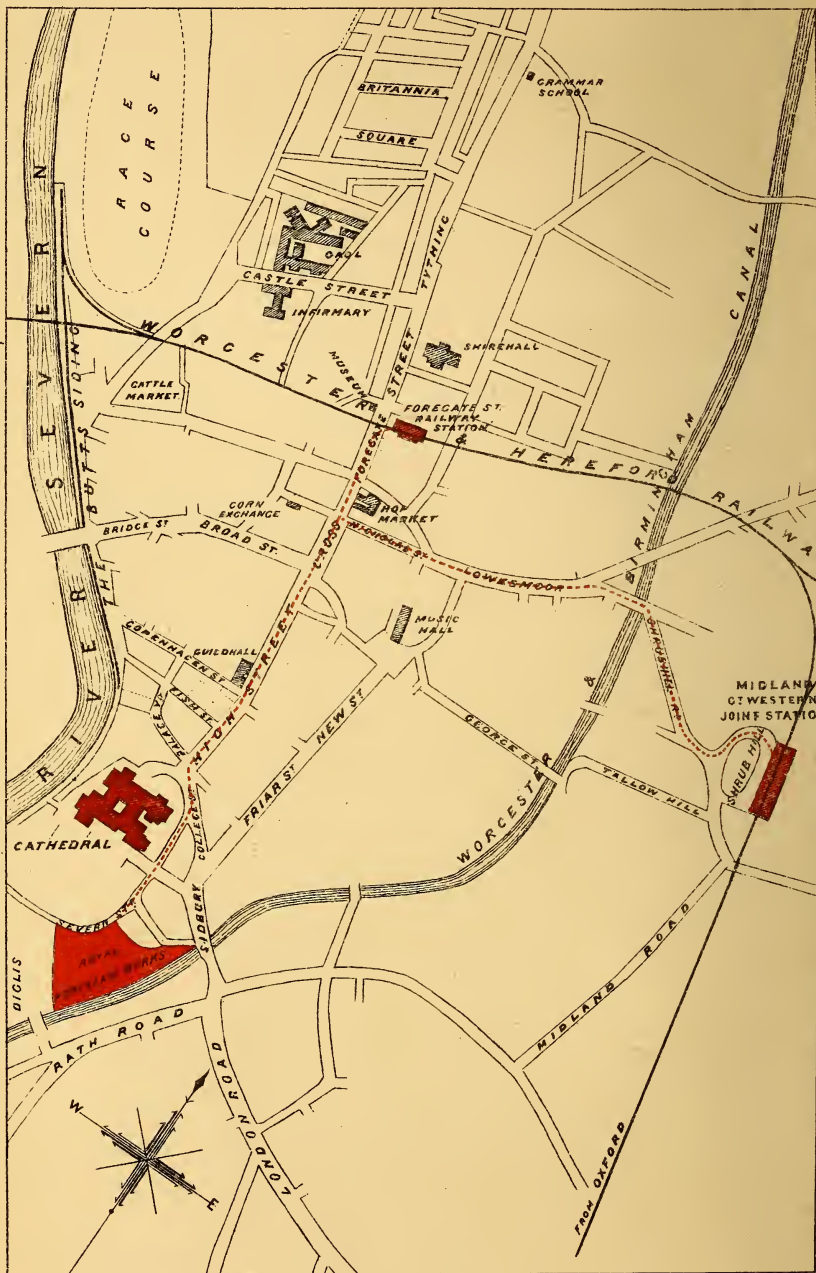


*The registered Trade Mark which will be found on every piece either
impressed in the ware or printed on the glaze.*

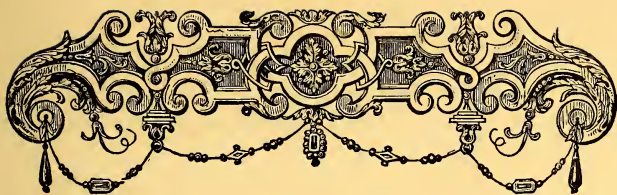
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PLAN OF THE CITY OF WORCESTER,



SHEWING THE SITUATION OF THE ROYAL PORCELAIN WORKS.



Description of the Illustrations.

The View of the Works is based on a photograph taken from the tower of the Cathedral. The site is that of the establishment founded by Messrs. Chamberlain, some portion of which at one time belonged to Dr. Wall when a partner in Warmstry House. Of the buildings erected by Messrs. Chamberlain some still remain, but the greater part have been replaced by larger workshops and warehouses, to meet extended business and modern requirements. The first important addition was made in 1840, when the union took place between Flight and Barr and Chamberlain; the next in 1851-52-53, under Kerr and Binns; and more recently and much more extensively under the present Company since 1862.

The Route from the Railway.—The plan of the city is given that strangers may, without enquiry, readily find their way to the Works. The principal buildings are marked on the line of route from the centre of the city.

The Mill.—The first floor is shown, where the large pans for grinding stone and flint, and also the glaze and colour pans are placed.

Slip House.—The Slip House arrangements may appear to the visitor rather complicated, from the number of pumps, sifters, and presses which are employed; but the description we have given of the process will, we trust, be sufficient to make it understood.

The Thrower.—We have given three illustrations of this branch of the art. The Egyptian Thrower is copied from the Theban mural painting as given by Birch, Brongniart, and other authorities. The Continental Thrower shews the action of turning the wheel by his foot. The English Thrower is taken from the Throwing Room of the Royal Porcelain Works, and may be considered as a general illustration of the English system. In large earthenware manufactories steam is used as the motive power, and the mechanical arrangements which give the Thrower power over the speed of the wheel are now very complete.

The Pressing Shop gives a general view of one of the workshops in the Royal Porcelain Works. All kinds of pressed and ordinary useful wares are made here—soup tureens and covered dishes, &c., for dinner services, comports for dessert services, teapots, jugs, and the various etceteras for the breakfast table, all belong to this department.

Ornamental Pottery.—This definition includes Figure Making, Vase Making, and the countless variety of decorative works which come under this head, including Flower Making and Piercing.

The Oven is always a subject of interest to the scientific observer, particularly when the great heat to which a porcelain furnace is raised is explained. To judge and control this power requires much experience, nerve, and skill.

The Interior of the Oven is very instructive, as it shows the positions suitable for the various wares. Some will bear more fire than others, and are consequently put in hotter places. Plates will bear more fire than cups, cast ware than pressed ware. It is the business of the fireman to see that each seggar is put in its proper place.

The Dipping Room.—The action of the Dipper shows the ordinary process in glazing useful wares. All ornamental goods are subject to the same treatment, requiring somewhat more careful trimming afterwards. The ware having been dipped is placed in a stove to dry. It is then taken by the trimmer, who removes any superfluous glaze, after which it is fired.

The Painting and Gilding Room.—This room is selected as being easy of access and the workmen being typical of a large number in other parts of the manufactory. The gilders are seated in the long room, and the painters in small rooms adjoining.

The Printing Room shows the printers at their presses; the transferrers, who place the prints on the wares; and the cutters, who prepare the paper for them.

The Burnishing Room, where the ware is received from the Enamel Kilns, shows the women at work in this department.





WORCESTER ROYAL PORCELAIN WORKS.

Introduction.



HE extraordinary mania for Pottery at the present time is not peculiar to our age. The history of our art throughout the world teaches us that it has been cultivated in all ages and under every variety of circumstance, and at times under the most distinguished patronage.

There are many reasons why this important and truly beautiful art should engage the attention of the people. The learned Brongniart says ("Traité des arts Céramiques")—"I know of no art which presents in the study of its practice, its theory, and its history, so many interesting and varied considerations as the Ceramic art."

We regard it as the graphic medium of antiquity. The clay so sensitive in the hands of the potter exhibits the most subtle expression of the actor's will, and presents to us the mind and character of ancient peoples who may have left no other trace behind.

Birch says—"The history of the art of working in clay, from its rise amongst the oldest nations of antiquity till the present time, resolves itself into two great divisions, which have engaged the attention of two distinct classes of enquirers, namely, the technical or scientific part, comprising all the details of material,

manipulation, and processes ; and, secondly, the historical portion, which embraces not only the history of the art itself and the application of ancient literature to its elucidation, but also on account of the light thrown by monuments in clay on the history of mankind.”*

The study, therefore, is neither deficient in dignity, nor limited to trifling investigations, nor rewarded with insignificant results.

A knowledge of the origin and progress of any branch of art must always be of immense importance to its future development and improvement. This is particularly true of the art of working in clay, both from its universal diffusion and from the indestructible nature of its products.

Entirely sympathising with these sentiments, we have undertaken the present *brochure*, not with the idea of giving a history of porcelain manufacture in its technical or scientific details, nor the history of the art with reference to nations ; on these subjects distinct and important volumes have been written, which are all accessible to the student.

Our purpose is the more modest one of answering the questions so frequently put by visitors, respecting the various processes of manufacture at the Royal Porcelain Works.

Everyone being interested in the manufacture of porcelain, it is our desire to explain the processes in the most simple manner, and endeavour to make a visit instructive as well as interesting, and possibly direct attention to the geological, chemical, and technical studies which are involved in its practice. We have also added a few words as to the history of the art in the hope that they may induce a further study of that part of our subject.

The manufactures of the Royal Porcelain Works at Worcester embrace the following varieties :—

Fine Porcelain.

Ivory Porcelain, a speciality.

Vitreous Stone Ware (semi-porcelain), a speciality.

* Birch, “Ancient Pottery and Porcelain.”

Crown Ware (superior earthenware), a speciality.

Parian.

Majolica.

Terra Cotta.

&c., &c., &c.

The raw materials consist of—

China Clay, from Cornwall.

China Stone „ Cornwall.

Felspar „ Sweden.

Fireclay „ Stourbridge.

Do. „ Broseley.

Marl „ Broseley.

Flint „ Dieppe and Gravesend.

Calcined Bones, both home and American.

&c., &c., &c.

The styles of decoration in use at the Royal Porcelain Works embrace all those usual on pottery and porcelain. The following are specialities more or less peculiar to these Works :—

* Perforated Porcelain.

Ivory Porcelain.

Raphaelesque Decoration.

Bronze and Metallic Decoration, in various styles.

Jewelled Porcelain.

Enamels on Royal Blue (Worcester enamels).

Visitors to the Royal Porcelain Works desirous of seeing the processes of manufacture are conducted over the Works in the following order :—

The Mill.

Figure Making Room.

The Blunging House.

Biscuit Oven.

The Slip House.

Dipping Room.

The Throwing Room.

Glost Oven.

The Turning Room.

Painting and Gilding Rooms.

Burnishing Room.



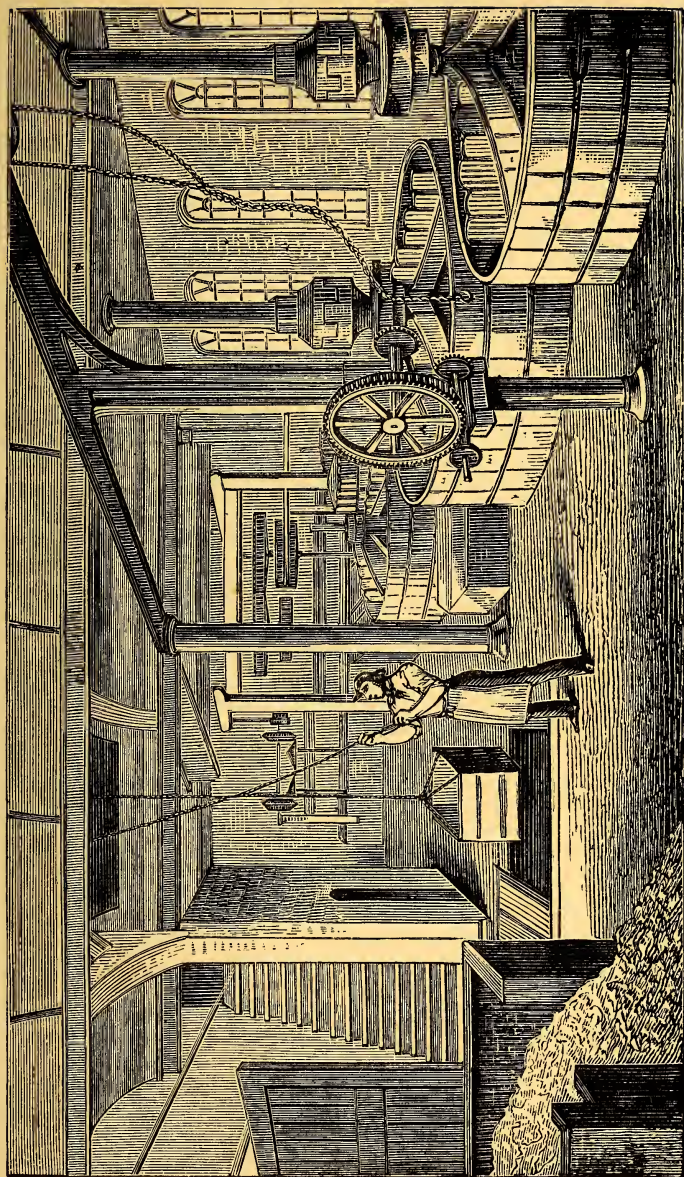
THE MILL.

THIS department consists of a boiler-house, engine-house, and the mill, a three-storied building. On the ground floor are placed the washing pans which receive the materials from the upper stories, the arks where the ground substances are stored, and a mill for grinding gypsum to make plaster of Paris, of which great quantities are required for moulds.

On the first floor are large pans for grinding flint, felspar, Cornish stone, &c., &c., also pans for grinding the glazes, and a series of smaller ones for colours. Adjoining these is the Mixing Room.

On the upper story are similar large pans for grinding calcined bones, a substance extensively used in the manufacture of china, mills for grinding gold, and a series of pans for grinding colours. The room adjoining is the Laboratory.

The pans are all formed on the same model, but vary in size according to the material for which they are required. They average about 10 feet in diameter and 3 feet in depth. These vats or pans, which are very firmly hooped together, are paved with small blocks of hard chert stone, cemented together with ground china or similar material; in the centre moves an upright shaft, to which are fixed four very strong arms radiating in curved lines, and which move the runners or grinding stones. When the materials to be ground are thrown into the pan, water is supplied to the depth of several inches, and on the mill being put in motion the particles are abraded against each other and between the runners and pavers until they are reduced to the consistence of thick cream.



The Mill.

As the future beauty of the porcelain depends to a great extent on the proper grinding of the materials, much attention is paid to this department.

The time necessary for grinding the different materials varies from twelve hours to six days ; an idea of the fineness required in the grinding may be understood from the inspection of the silk lawn, which numbers about 4,000 meshes to the square inch, and through which every particle of the material used in the body or glaze must pass in the process of mixing.

The principal substances used in the manufacture of porcelain are china clay, china stone, calcined flints, felspar, and calcined bones. For the glazes—borax, lead, flint, Cornish stone, &c., &c.

CHINA CLAY.—Kaolin was first discovered in England by Cookworthy in 1768. It is the felspar of decomposed granite rock, and is found in Cornwall. According to analysis its average composition is—

Silica,	46.
Alumina,	40.
Lime and Potash,	4.
Water,	10.

It is washed from the decomposed rock and allowed to settle in large vats, from which it is cut in blocks when dry and packed on board ship or in hogsheads for transport to the potteries.

CORNISH STONE.—Petuntse, is the decomposed granite rock found in Cornwall. It is composed of quartz, felspar partially decomposed, and a talcose material. It is quarried at St. Stephen's, in Cornwall, and is sent to the various potteries without any preparation.

FLINTS, although they may not be used in the body of the porcelain, are necessary in the manufacture. For pottery purposes boulder flints are preferred, as they are generally more free from lime than chalk flints. In order to prepare them they are placed in a kiln constructed for the purpose and calcined at a red heat ; when cool they become perfectly white ; in this state they are crushed and ground like the other materials.

CALCINED BONES are largely used in the manufacture of English porcelain. For this purpose ox bones only are suitable. They are brought in large quantities from South America. Home-prepared bones are also used in certain proportions. These latter still retain a proportion of carbon which gives a dark colour to the porcelain clay, but this all disappears in the burning of the ware.

The use of bones is peculiar to English porcelain, and constitutes the great difference between it and the porcelain made on the Continents of Europe and Asia. From the fact of this material being used, the English ware may be called a soft or tender porcelain, and that of France, Germany, and China, hard porcelain.*

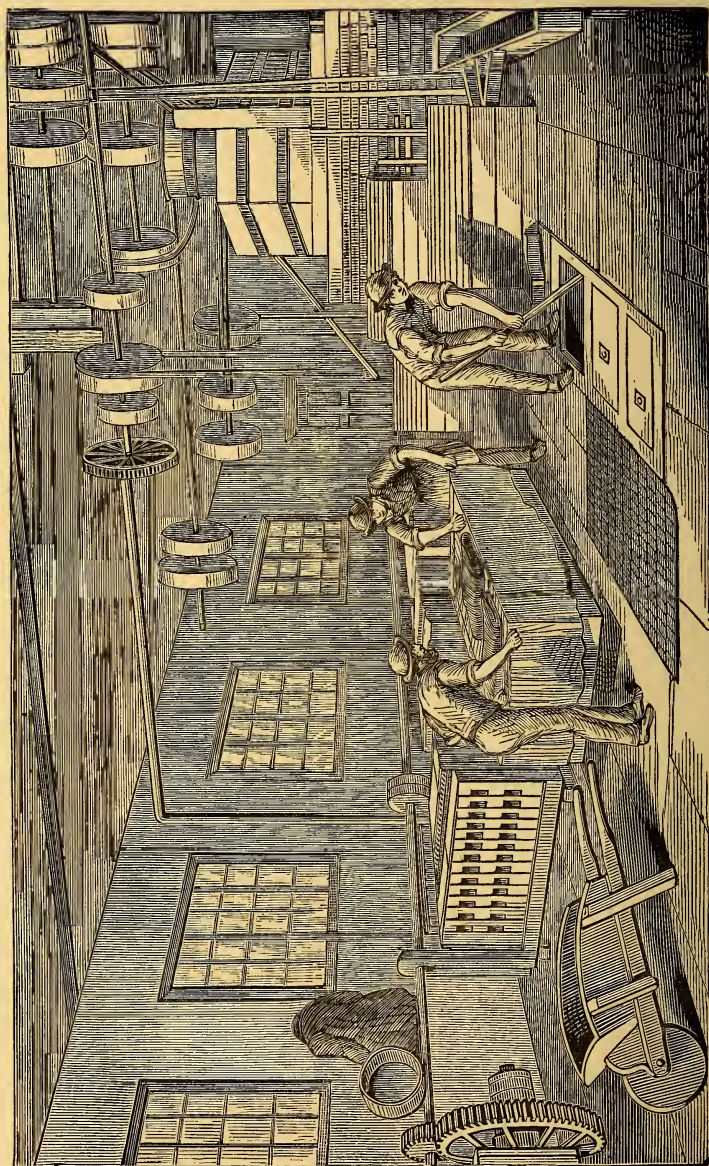
For most purposes the artificial or tender porcelain is the better article, particularly for the finer branches of ornamental work and for richly decorated services.

FELSPAR, one of the materials which is much employed, is brought from Sweden in its purest state. It is found in many parts of England and Ireland, but is too often stained with iron. This spar in its raw state is of a salmon-red tint, but becomes pure white on being calcined. It is then ground as we have described.

The materials for the **GLAZE** of English porcelain are ground flint, Cornish stone, borax, lead, &c. These having been weighed out in proper proportions are put in a melting furnace called a fritt kiln. When perfectly melted together they form a glass, which, in a melting state, is allowed to run into a reservoir of water, which disintegrates the mass, and allows the grinding to be more easily performed. A certain proportion of this fritt powder is used along with borax and other materials, which are all ground together, requiring sometimes ten days for the process.

Adjoining the Mill are the Clay Shed and Mixing House or Slip House.

* Brongniart divides soft porcelain into two classes—naturally soft and artificially soft. The early pastes of Bow and Chelsea, St. Cloud and Sèvres were naturally soft; those of England at the present time are artificially soft.



The Slip House.

The CLAY SHED contains stocks of the various clays which do not require grinding, but which are sufficiently pulverised in the state in which they are received. In this shed are several vats containing blungers, which are worked by machinery. These vats are supplied with the different materials, and when sufficiently blunged so as to form a uniform mass like thick cream the slip (as it is called) is allowed to run into the arks or reservoirs prepared for its reception in the next room, which is called the Mixing Room or

SLIP HOUSE.

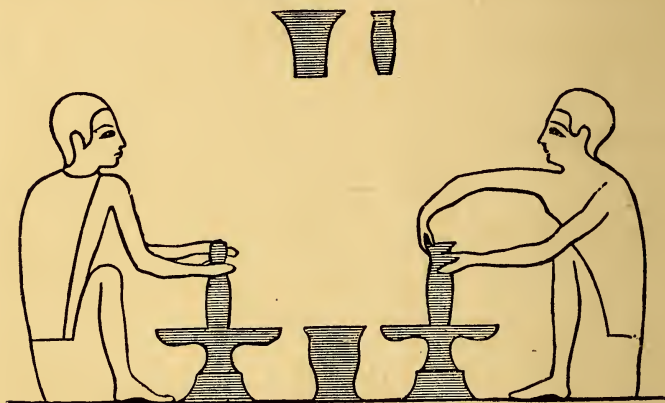
Underneath the floor of this building are large arks, which act as reservoirs for the materials from the mill and clay house. Here are the mixing pots, into which the ground bone or stone, &c., are thrown by pumps. In the mixing pot is a shaft from which radiate arms having arranged on them rows of magnets which work through the materials so as to remove any particles of iron that may by accident or abrasion have got into them. From the mixing vat the material passes through a series of sieves worked by machinery. It is then pumped into the clay press. This is a machine where the slip is received into a number of chambers lined with linen bags, and where by hydraulic pressure the water is expressed until the mass assumes the consistency of paste. The clay from the press, being in a state of paste or dough, is taken to a vault or clay cellar, where it is regularly beaten and turned over and again beaten and kneaded to make it tough.

When the proper consistency and homogeneity have thus been imparted to the dough it is ready for the workman. The usual methods of manufacture are three—"throwing," "pressing," and "casting"—the two former with the clay in a state of paste, the latter when in a state of slip.

THE THROWER—THE POTTER'S WHEEL.

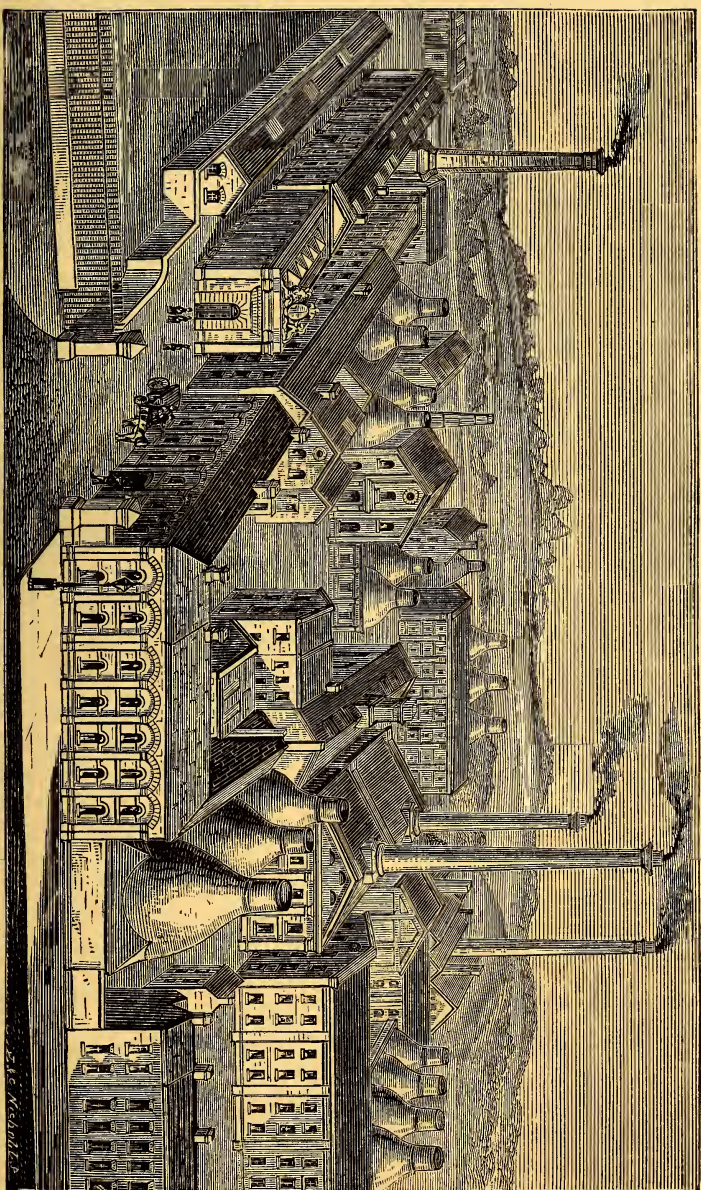
Plain circular articles, such as cups and bowls, and in some cases jugs and teapots, &c., are made on the potter's wheel by the thrower. This apparatus is of great antiquity. It is certainly the

oldest mechanical contrivance in connection with the art of pottery. In the tombs at Thebes (dating about 3800 years ago) have been discovered drawings which exhibit the potter's art in a variety of forms—the kneader of the clay, the baller, and the thrower.



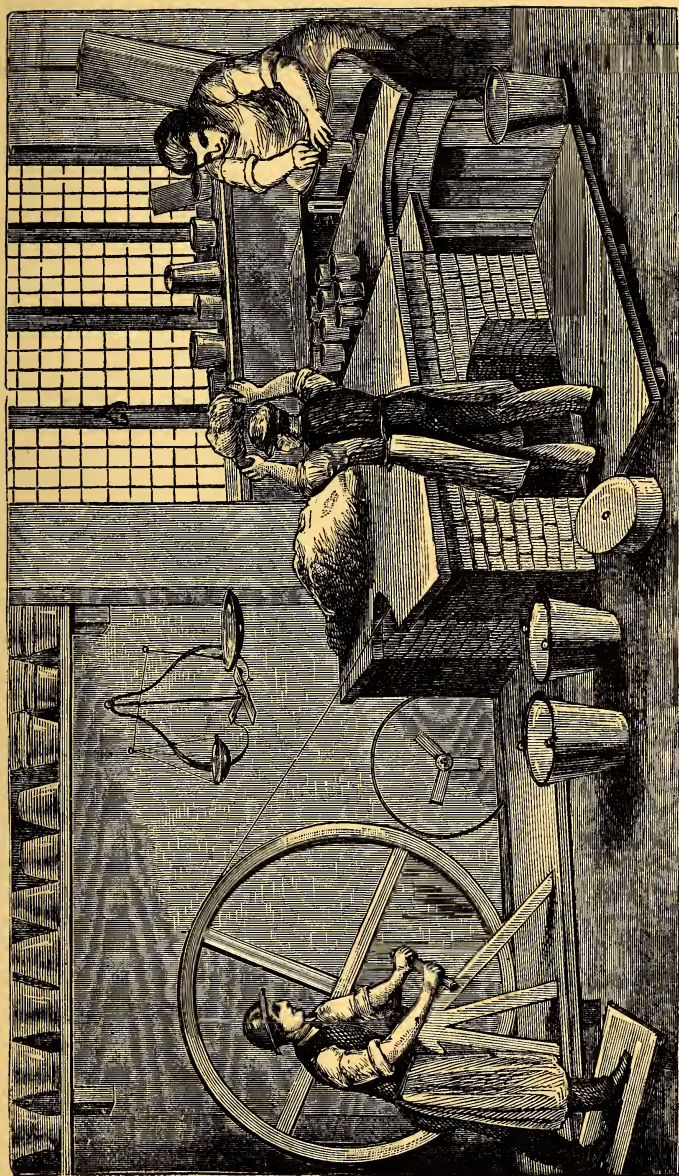
THE EGYPTIAN THROWER.

The man who works at the potter's wheel is called the thrower. He receives from his assistant a ball of clay, which he throws upon the head of the wheel or horizontal lathe before him and presses it with both hands; the rotary movement causes the clay to rise in the form of a stalk or cone which he then depresses and again allows to rise. When the clay is thus made ready he inserts his thumb into the mass, moulding and fashioning the outsides with the other hand. In this way cups and bowls are formed. In the drawing to which we have alluded the action of the thrower is precisely the same as at the present time. The only difference being in the motive power which turns the wheel. In Egypt it was given by the left hand applied directly to the wheel. In China the motion is given in various ways—by the hand, by the foot, and by a loose strap. On the Continent of Europe, by the foot of the workman. In England, by a band attached to a large wheel turned by a boy, and sometimes by machinery or steam power.



The Royal Porcelain Works, Worcester.





The English Thrower.

Formerly all cups and hollow pieces, as jugs and teapots, were made on the wheel; in modern times the greater part of these objects are made in moulds, which not only ensure correctness of



The Continental Thrower.

size but admit of patterns being embossed on the surface without extra labour to the workman.

THE THROWER having formed the cup or "lining"* as it is called, afterwards presses it into a mould. In a short time this mould will have absorbed sufficient moisture from the clay to allow it to become detached; it is then taken out and is ready for

THE TURNER.

THE TURNER fixes the ware upon his lathe and treats it much the same as he would a piece of wood or metal. He finishes the edge and foot, and if necessary the outside surface. Having completed the form of the cup it is passed to the Handler.

* The articles formed by the Thrower in the presence of visitors are made to show the power and working of the Potter's Wheel, but are of no use as manufactured articles, cups being made in moulds, and saucers by a process afterwards described as flat pressing.

Handles are pressed in moulds, and whether for tea-cups or vases, undergo the same process of trimming and fitting, which is speedily done by the workman, who next proceeds to fix it on the cup with a little liquid clay called slip. This clay acts as a cement, and being of the same material, unites the two parts when burnt in the oven. All objects with handles go through a similar process.

The manufacture of plates and dishes is called **FLAT PRESSING**, and the process is very different from that just described.

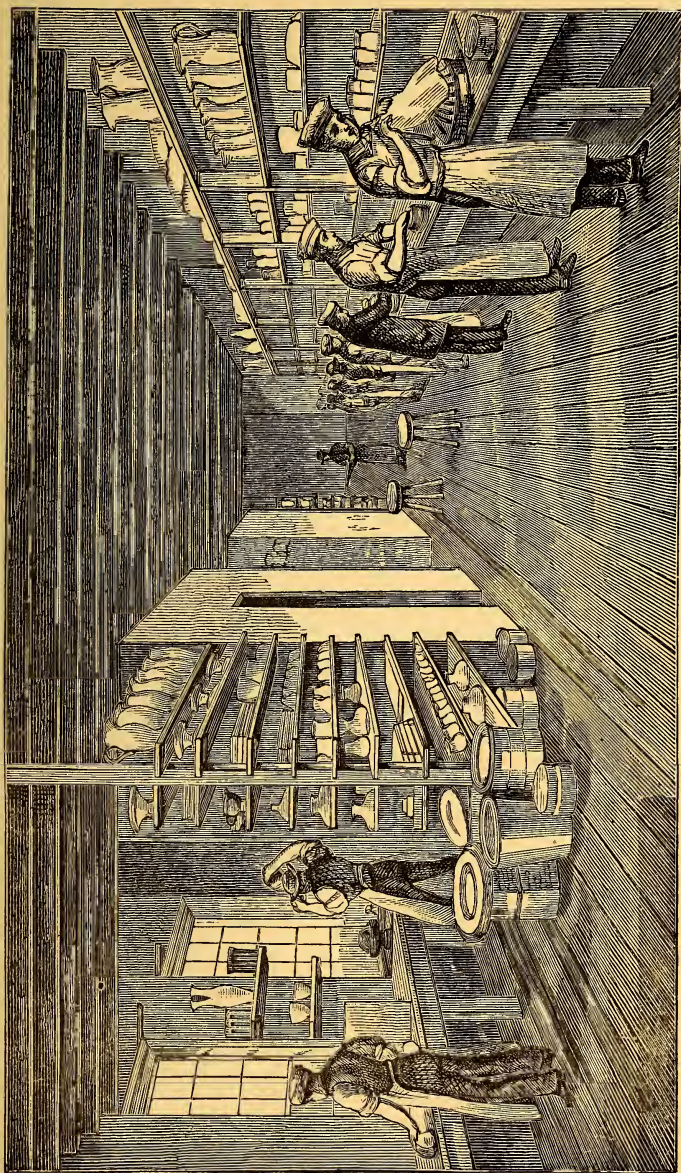
For plates the clay is weighed into balls, which are beaten out into flat circles like pancakes. The mould that gives the form to the face of the plate or saucer is fixed on a horizontal lathe called a jigger. It is then covered with a disc of clay and pressed firmly on to the mould whilst it revolves very quickly. The workman then takes a tool called a profile fitted to the edge of the mould, and which on being pressed in the centre causes the foot to rise in a perfect circle. The mould, with the plate upon it, is now placed in the stove to dry. When the heat causes the plate to contract from the mould it is taken off and finished in a semi-dry state. The plate is then ready to be burned, and the mould is ready to receive another charge.

The manufacture of soup tureens, covered dishes, ewers and basins, &c., is called **HOLLOW WARE PRESSING**. These objects are all made in moulds. The workman first prepares a slab of clay, and having carefully placed it in the mould he bosses it with a wet sponge, and presses it into every line of the pattern. The mould after a little time absorbs sufficient moisture to allow the clay to contract, and the piece is easily removed.

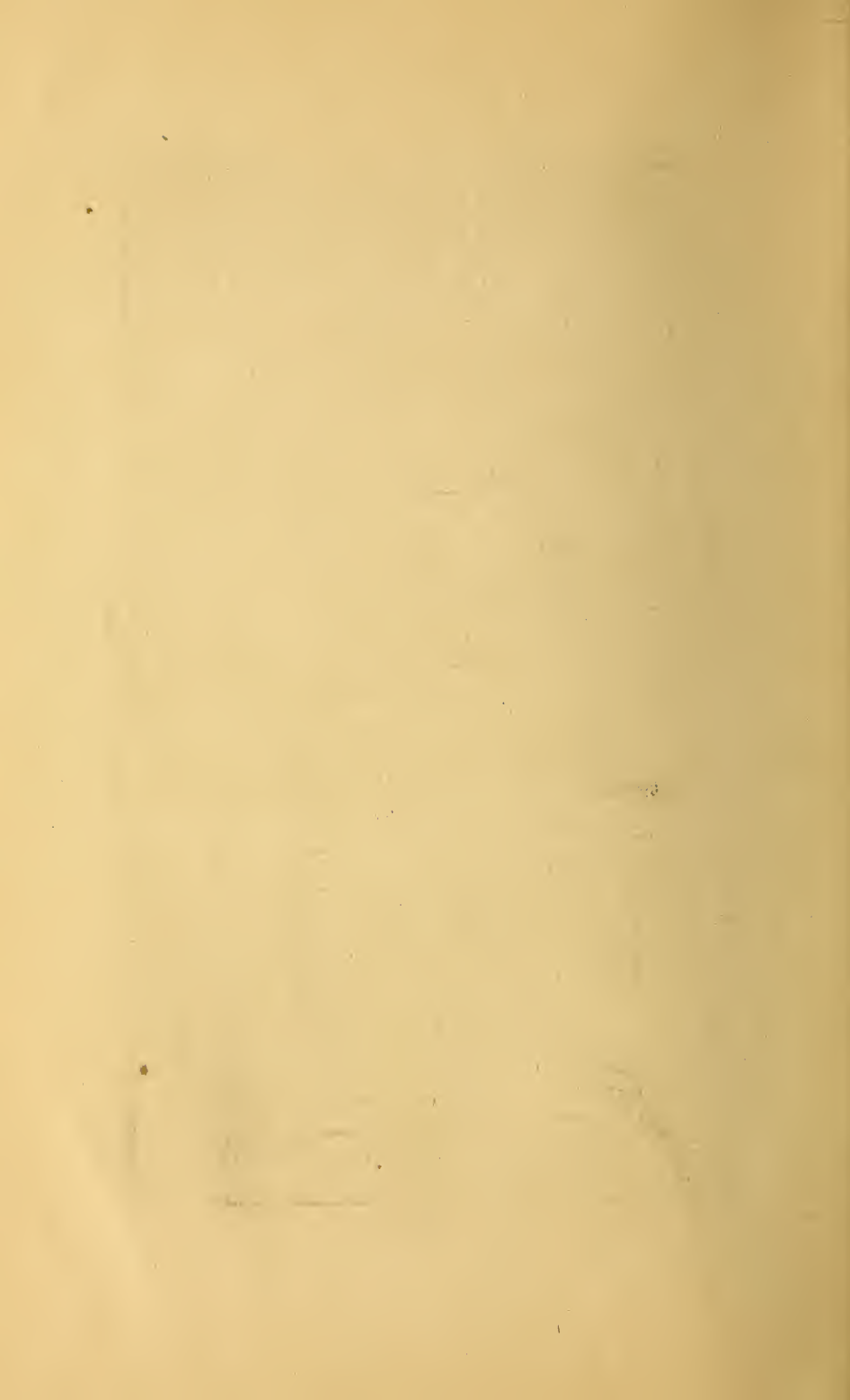
ORNAMENTAL POTTERY.

CASTING, one of the most interesting processes of potting, is shown in the *Figure Making Department*.

When a figure of any size or shape has been finished by the modeller it is cut into pieces to be moulded. The mould maker is most careful to arrange that each part shall be delivered from the mould in perfect condition and with as little seam as possible.



The Pressing Room.



A figure when thus cut up and moulded may be represented by from twenty to thirty moulds, each containing a separate part.

The china for this process of manufacture is not used in a clay state, but as a liquid slip like thick cream. This is poured into



Ornamental Pressing.

the orifice of the mould left for the purpose, and then allowed to stand for a short time; when sufficient slip has adhered to the mould the remainder is poured back into the casting jug. The slip having remained in the mould for some minutes becomes sufficiently solid to enable the workman to handle it. He next proceeds to arrange all the pieces on a slab of plaster before him. He then trims the superfluous clay from each and applies some liquid slip to the parts and so makes a perfect joint, each part being fitted to its proper place, until the whole figure is built up as it was before it was moulded; as each joint is made the superfluous slip is removed with a camel's hair pencil.

The object is next propped with various strips of clay having exactly the same shrinkage, and is then ready for the oven.

This shrinkage or contraction to which we have alluded is one of the most important changes, as well as one of the greatest difficulties encountered in the art of pottery.

The change will be more or less, according to the materials used and the process employed in making. Thus, earthenware will not contract so much as porcelain, and a pressed piece will not contract so much as a cast one.* The contractions are sufficiently well known to the modeller, and he makes allowance



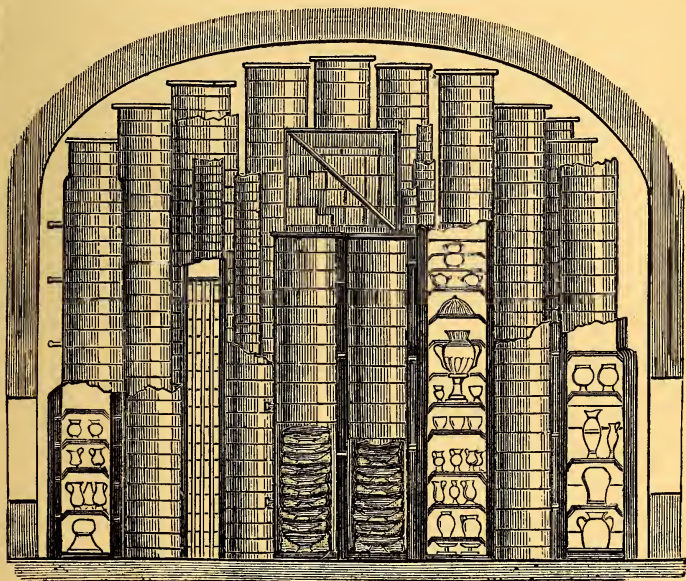
Biscuit Kiln Placing House.

in the model accordingly, the design being fashioned so much larger than it is actually required. The shrinkage from the original model to the finished object being sometimes equal to 25 per cent.

* The shrinkage arises from two causes; first, from the loss of water which in a highly plastic paste may cause contraction to the extent of upwards of 15 per cent.; and, secondly, if the body be formed of readily fusible substances a further diminution of bulk arises from the closer juxtaposition of the component particles by incipient fusion, and this amounts frequently to from 10 to 15 per cent.

The ware up to this point in all the stages of manufacture we have described is most tender, and can only be handled with the greatest care.

The manufactured objects being now ready for baking are taken to the placing house of the biscuit oven, where may be seen some hundreds of seggars, of all shapes and sizes. These seggars, which are made of fire-clay, and are very strong, are the cases in which the ware is to be burned. Common brown wares, when the fire is comparatively easy, may be burned without any protection, as the fire or the smoke cannot injure them ; but for porcelain or white earthenware these cases are necessary.



Interior of Biscuit Oven.

The seggars are made of various shapes to suit the different wares. Flat round ones are used for plates, each china plate requiring its own seggar and its own bed in it, made of ground flint very carefully prepared, for the china plate will take the exact form made in the bed of flint.

Cups and bowls are placed, a number of them together, in oval seggars, ranged on china rings to keep them straight. These rings must be properly covered with flint to prevent them adhering to the ware burned upon them.

The seggars when full are piled one over the other most carefully in the oven, so as to allow the pressure to be equalized as much as possible ; this is absolutely necessary, as when the oven is heated to a white heat (calculated as equal to about 25,000 Fahrenheit) the least irregularity of bearing might cause a pile to topple on one side and possibly affect the firing of the whole oven, causing a great amount of loss.

Calcined flint is used for the purpose of making beds for the ware, because being pure silica it has no melting properties, and will not adhere to the china.

The form of china ovens seems to have been much the same in all ages, viz., that of a cone or a large bee-hive.

A china oven is generally about 14 feet in diameter inside. It is built of fire bricks, and is encased several times round with bands of iron to prevent too great expansion from the heat inside. There are generally eight fireplaces around the oven with flues which lead directly into the oven in different directions.

A china oven takes about forty hours to fire ; it is then left to cool for about forty-eight hours.

In order to test the burning, the fireman draws small test cups through holes in different parts of the oven made for the purpose. These tests show both by contraction and the various degrees of translucency the progress of the fire. The test holes are carefully stopped with bricks so that cold air cannot be drawn into the oven.

The porcelain having been burnt is now in the state called biscuit ; it is translucent and perfectly vitreous. Having had the flint rubbed off the surface and been carefully examined it is sent into

THE DIPPING ROOM.

The dipping room is supplied with large tubs of the various glazes suitable to the different kinds of ware.

The glaze is really a glass, which is so chemically prepared of borax, lead, flint, &c., &c., that when burned it will adhere to the porcelain and will not craze or crackle on the surface.

This glaze is ground very fine (being on the mill for about ten days) until it assumes the consistency of cream.

The process of glazing is simple, but requires a practised hand, so that every piece may be equally glazed and the glaze itself equally distributed over the surface.



The Dipping Room.

From the dipping room the ware is brought into the drying stove, where the glaze is dried on the ware. It is then taken by women into the trimming room, where any superfluous glaze is taken off and defective places are made good. From this room it is taken to the glost oven placing house, where the greatest care

and cleanliness are required, as should any dust or foreign substance get on the glaze it will adhere in the fire and very likely spoil the piece.

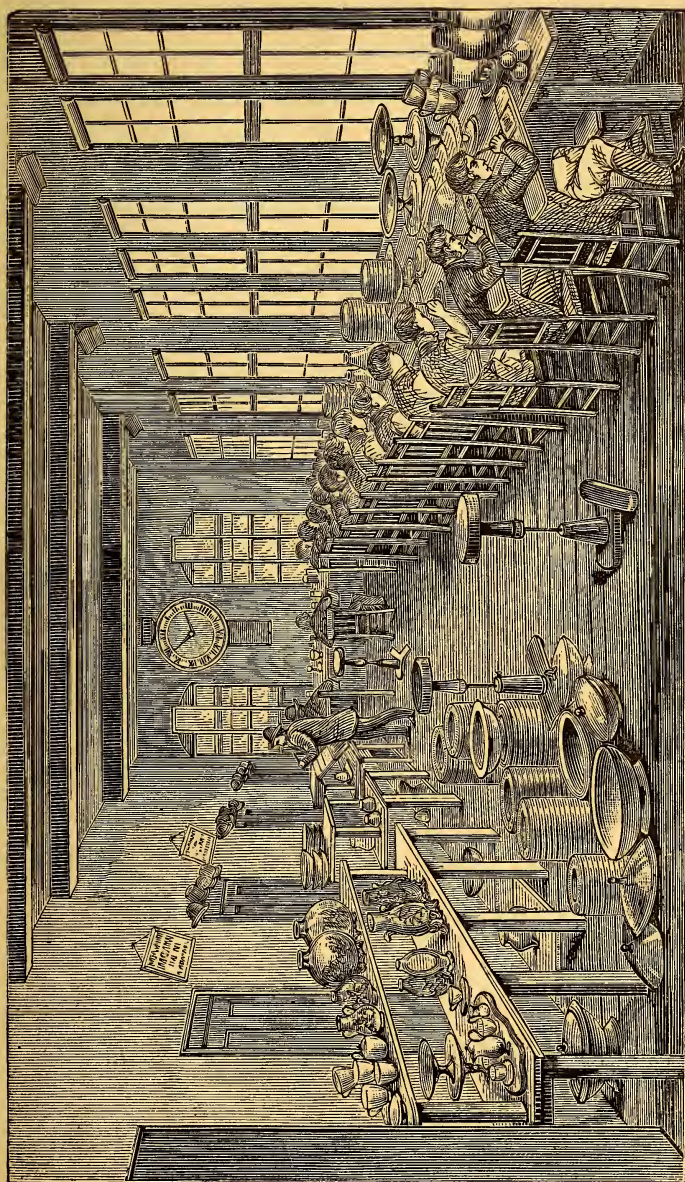
The glost oven is of the same construction as the biscuit. It takes 16 hours to fire, and the tests are made in the same manner as in the biscuit oven. The average heat is equal to about 11,000 Fahrenheit. In about 36 hours the oven will be sufficiently cool for the ware to be removed. It is then sent into the White Warehouse, where it is sorted and given out to the painters and gilders to be decorated according to the orders on the books.

Visitors generally look forward with pleasure to the mysteries of the Decorating Department. It is interesting to watch the painters, some on landscapes, others on birds, or flowers, or butterflies. All are interested in their work, which to the uninitiated may appear at first sight to be very unpromising, the colours being dull and the drawing unfinished. As the work advances it will be better understood. After the first "wash in" has been burned and the painter has worked upon it for the second fire, the forms and finish both in style and colour begin to appear.

The colours used are all made from metallic oxides ; thus copper gives green and black ; cobalt, blue ; gold, purple ; iron, red ; &c.

The painters are trained from about 14 years of age under special instructors, they thus acquire a facility of drawing and general manipulation of the colours which it is found almost impossible to attain at a later period of life.

The gilding process is carried on in rooms adjacent to the painting. The elaborate and finely executed patterns in gold are all traced by the hand. The workmen require special training for this department also, correct drawing and clean finish being absolutely necessary. For the purpose of getting correct circles and speedy finish on circular pieces a simple mechanical contrivance is used. A small table or stand with a revolving head receives the plate or saucer or cup, which is carefully centered so as to run truly. The workman then, having filled his pencil with



The Gilding Room.



gold, fixes his hand upon his rest, applies the pencil to the edge of the piece and gently turns the table head round ; the edge is thus formed in a moment in the most perfect manner.

The gold used for decorating porcelain is the purest that can be obtained from the assayer. It is supplied to the factory in brown grains like ground coffee.

The chemist then mixes with it a little flux to make it adhere to the ware, and a proportion of quicksilver (which all flies off in the kiln) to reduce it for grinding. It is next ground on a mill for about twenty-four hours, and it is ready for the workman.

As seen in use it looks more like printer's ink than precious gold ; its true character is revealed after it has passed through the enamel kiln.

As nearly every process of decorating porcelain is performed on the glazed surface of the ware, special kilns are arranged for burning the colours and gold that they may adhere or sink into the glaze. In proportion as this operation is properly performed so will the colours be more or less bright and beautiful. The kilns used for this purpose may properly be called muffles, as they are similar in principle to those used by goldsmiths, only much larger in size. They are heated on the reverberating principle, the fire-places (which vary in number according to the size of the kiln) being at the side, and the flues going round the kiln.

Great care is required in placing the ware in its finished state, as any particle of dirt or the mark of a dirty finger, or a rub on colour or gold will all be shown on drawing the ware, and will necessitate another firing and consequent additional risk.

The Worcester Porcelain Works were the first to introduce printing on porcelain with any amount of success. The process has been continued ever since the year 1756, but the character of the work has been to some extent altered. In the early days of its introduction it was principally used to print patterns in cobalt blue in imitation of Chinese painted patterns. It was also much used, and probably in its earliest days, as a means of decorating objects with fine line engravings in black or red, and in such cases

the object came finished from the printer's press. Printing is still used in this manner for common wares, but in the Worcester Works it is generally employed to give the outline to a pattern, and by this means save the trouble in drawing, the colouring of the pattern being done by other hands, principally females.

Printed patterns pass through the enamel kiln fire like other decorative processes.

The time required for enamel kiln firing is about six hours, the heat attained being equal to about 2,000 Fahrenheit.

BURNISHING AND CHASING.

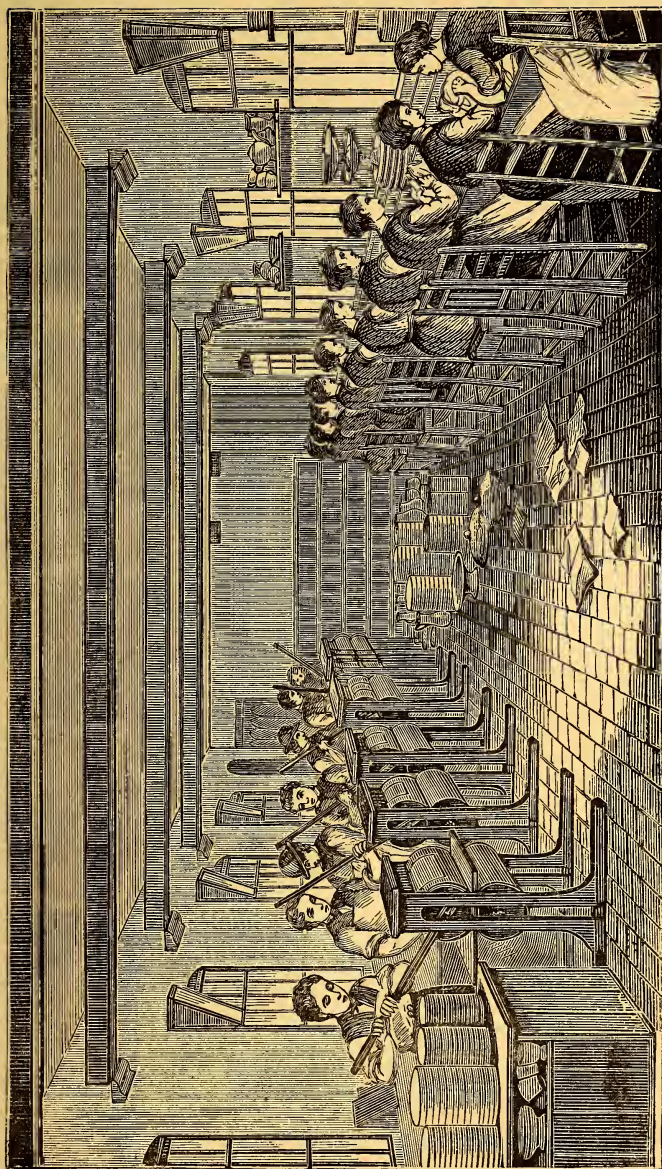
When the ware is drawn from the enamel kiln it is carefully sorted. That which has to be re-painted or re-gilt is sent to its proper destination, and that which is finished is sent into the Burnishing Room, where it is distributed to a number of women who perform this last operation. The gold is now of a dull yellow colour, but after it has been carefully cleaned and a burnisher of blood stone or agate has been quickly rubbed over it, it assumes the beautiful bright surface of burnished gold.

When patterns are chased upon the gold, a tool with a fine point formed of agate is used, by which only those parts to be polished are touched, leaving the dead gold to show a relief in colour.

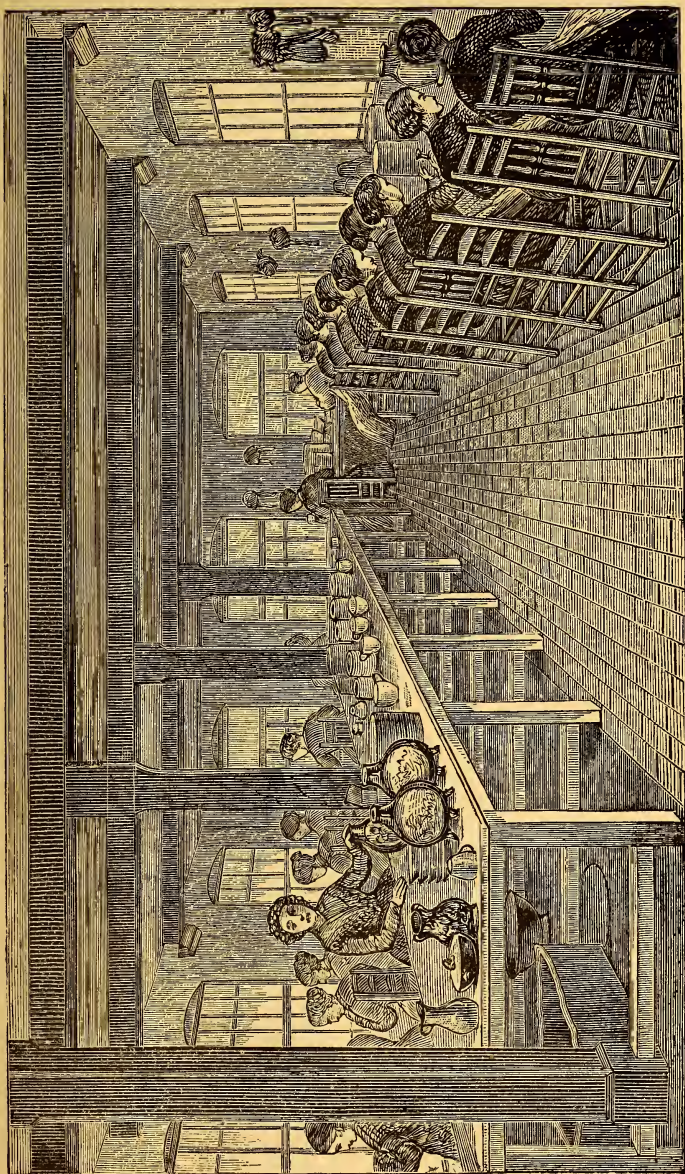
From the burnishing room the ware is sent into the warehouse, where it is distributed to the various orders for which it has been made. It is then papered up and packed.

The visitors having now been conducted through the various representative* departments of the manufactory, and having seen how the meanest material in nature, "clay," can be made to assume the most beautiful forms, and by the application and

* The workshops exhibited are selected as being the most likely to interest, whilst they are types of many others. The rooms in which the higher classes of work are carried on are not shown, as the interruption of visitors would disturb the artists at their work.



The China Printing Room.



The Burnishing Room.



combination of science and art to become more valuable than the precious metal itself, will, we feel assured, be more ready to appreciate the finished article, whether in the form of a simple cup and saucer or plate, or the most elaborately-decorated vase.

Shaw, when writing on Staffordshire pottery, says—"To give our readers some idea of the various ramifications of a single piece of *earthenware* before it arrives at completion, we may note that at the present day to produce the commonest painted bowl used by the poorest peasant wife to contain the breakfast for her rustic husband, the clays of Dorset and Devonshire, the flints of Kent, the granite of Cornwall, the lead of Montgomery, the manganese of Warwickshire, and the soda of Cheshire must be conveyed from their respective districts, and by the ingenious processes, the results of unnumbered experiments, be made to combine with other substances apparently as heterogeneous, obtained from other nations.

"An ordinary piece of ware will pass through, on the average, at least 18 different hands or processes, after the materials arrive on the ground, before it can be sent out in a perfect state, as follows: The miller, the slip maker, the preparer of clay, the baller, the thrower, the carrier, the turner, the handler, the biscuit fireman, the scourer, the dipper, the glost fireman, the sorter, the printer, the painter, the gilder, the enamel fireman, the burnisher."

The Worcester enamels on Royal blue, painted *en gresaille*, have been considered amongst the finest porcelain works produced in England. The idea for this work was taken from the enamels of Limoges executed on copper in the 16th century. The pictures by Penicaud (who painted about 1503) are those which have been studied for style. There is more delicacy in his light and shade and more careful drawing of the figure than in the productions of the other enamellers of his time.

These works in enamel are quite different in their treatment to ordinary porcelain painting, the enamel being thick and opaque, and the principal lights and shades being given by the different thicknesses of the enamel.

In colouring figures, landscapes, flowers, and decorations, we must consider the paintings on the *pâte tendre* of old Sèvres as the *beau idéal* of porcelain painting.

The Sèvres vase was coated with a glaze so rich and soft that when a subject was painted upon it and passed through the enamel kiln fire the colours literally sank into the glaze without deterioration. It then appeared as if the vase had been painted on the biscuit and the glaze passed over it. Such a process at that time would have been an impossibility, because the fire necessary to melt the glaze would have destroyed the tender colours. The paintings on the old Sèvres vases have been executed with such high artistic feeling, and the vases themselves are so truly illustrative of that most decorative of styles (the Louis XV.), that we do not at all wonder they are highly appreciated and command almost fabulous prices. Vases after this manner are painted at Worcester with various coloured grounds—Royal blue, rose du Barry, turquoise, &c.

In addition to these painted and coloured vases there are other styles of decorated porcelain. A style called Raphaelesque was introduced at the Exhibition of 1862. It consisted principally in colouring embossed surfaces after the manner of the “Capo di Monte,” but with this difference, the “Capo di Monte” was a cold white porcelain, that of Worcester was of a soft ivory tone which tended to harmonize the colours and enrich their effect.

The ivory porcelain we have alluded to in the above description has been a speciality of Worcester since 1856, and has been the means of introducing several varieties of decorated wares. United with the Celadon it makes a very elegant combination either for figures or vases.

To the admirers of colour, the Persian turquoise, Imperial yellow, mauve, Celeste, and other enamels present an interesting series, which until recently have not been produced on pottery.

The latest novelty in taste is the adoption of Japanese style throughout nearly the entire series of manufacture. The manner in which this has been introduced at Worcester is quite original.

The first general display of the style was made at the Vienna Exhibition in 1873, where it received the highest award in the Diploma of Honour.

The great novelty in the character of these designs is based upon the *ivory porcelain*, which forms a delicate tinted ground for the bronzes and coloured golds, another feature in the new treatment.

It is unnecessary here to defend a style which has found so many admirers, but we may express our opinion that where it is best understood it is most appreciated. Many essays have been written upon it. It is certainly not exhausted, and we trust that improved education in decorative art will gain for it, as it deserves, increased admiration.

In writing of Japanese taste we refer to the ancient and best examples, for unfortunately since the style has become fashionable the country has been inundated with thousands of specimens from Japan, all imitations of the true work, but inferior in material, in execution, and in taste.





A FEW REMARKS

ON

The History of Pottery and Porcelain.



RESPECTING the antiquity of the potter's art there can be no doubt, for it is attested by frequent allusions in the Sacred Scripture as well as in classic poetry. One of the most expressive allusions, and which will be acknowledged by everyone who watches the operation of the thrower, whether English or foreign, is that in Jeremiah XVIII., 1-6 :—The Lord said to Jeremiah, “Arise and go down to the potter's house. Then I went down, and behold he wrought a work on the wheels. And the vessel that he made of clay was marred in the hand of the potter : so he made it again another vessel.” And the Lord said, “O house of Israel, cannot I do with you as this potter? Behold, as the clay is in the potter's hand, so are ye in mine.”

In a life of Homer attributed to Herodotus it is related that the poet when blind happened to pass near the celebrated potteries of Samos. The potters, recognising him, requested him to compose a poem on their art, offering as reward a selection from their wares. The poet complied, and composed the hymn called “The Furnace,” of which we give the poet Cowper's translation.

The general incidents of the oven have their counterparts so exact in the processes of to-day that we might almost imagine the poet had visited an English pottery.

HOMER'S HYMN.

THE FURNACE.

Pay me my price, potters! and I will sing.
 Attend, O Pallas! and with lifted arm
 Protect their oven! let the cups and all
 The sacred vessels blacken well, and, baked
 With good success, yield them both fair renown
 And profit, whether in the market sold
 Or streets, and let no strife ensue between us.
 But, O ye potters! if with shameless front
 Ye falsify your promise, then I leave
 No mischief uninvoked to avenge the wrong.
 Come, Syntrips, Smaragdus, Sabactes, come,
 And Asbestus; nor let your direst dread
 Omodamus delay! Fire seize your house!
 May neither house nor vestibule escape!
 May ye lament to see confusion mar
 And mingle the whole labour of your hands!
 And may a sound fill your oven, such
 As of a horse grinding his provender,
 While all your pots and flagons bounce within.
 Come hither also, daughter of the Sun,
 Circe the Sorceress, and with thy drugs
 Poison themselves, and all that they have made!
 Come also Chiron, with thy numerous troop
 Of centaurs, as well thou who died beneath
 The club of Hercules, as who escaped,
 And stamp their crockery to dust! Down fall
 Their chimney! Let them see it with their eyes,
 And howl, to see the ruin of their art,
 While I rejoice: And if a potter stoop
 To peep into his furnace, may the fire
 Flash in his face and scorch it, that all men
 Observe thenceforth equity and good faith.

The poet also alludes to the potter's wheel in describing the shield of Achilles.*

Plautus,† Horace, and Juvenal,‡ in their poetic descriptions, allude to the rapid rotations of the potter's wheel.

* Illiad xviii., 599-600.

† 3 Epidicus II., 35. ‡ Sat. IV., 131.

The Theban paintings bear testimony to the various processes in use at an early period.

High honour has been done to potters in ancient times. Their names have been recorded by philosophers, historians, and poets. Amongst others, we may name Dibutades,* whose works were preserved at Corinth. Corœbus at Athens, who flourished fifteen centuries before Christ, and who at one time was believed to be the inventor of the art. Talcides,† supposed by the Greeks to be the inventor of the potter's wheel.

It is said that Phidias, Polycletes, and Myson supplied models for the potters of their time.‡

These records are most valuable and interesting, but a still higher value attaches to the *works* which have been preserved to us. Whatever might have been written of classic vases, called by their proper names—Amphora or Hydria, Cylix or Cœnochoë, Olla or Pythos—we never could have imagined the wonderful beauty of the specimens with which the museums of Europe are now crowded, whether for truth of outline, elegance of decoration, or the interest inspired by the classic stories with which they are so appropriately decorated.

The circumstances to which we are indebted for the preservation of these wonderful specimens of pottery are also interesting.

As it was the custom among the early Britons to place vases in the graves of their chiefs, and the Romans continued in Britain a custom which was so largely practised by them at home, so the most beautiful specimens of pottery have come from the tombs of Etruria and Southern Italy. Nearly 12,000 of these vases have been found, of various shapes and sizes.

Had they been merely articles for daily domestic use they would have disappeared long ago; but superstitious reverence for the dead has not only been the cause of the superior character of the works themselves, but also the means of their preservation.

* Birch, "Ancient Pottery." † Birch, "Ancient Pottery."

‡ Brongniart, Vol. I., p. 573.

It was the custom to choose the finest specimens for the tombs, and as they were carefully placed so they have been found in a perfect state.

Another series of vases was used when cremation was practised. The most interesting tombs at Pompeii (in the street of the tombs) are those in which the Columbaria are still perfect, and in which vases containing the ashes of the dead were placed.

Some of these fine vases were given as prizes at the public games, and occasionally bear the names of the victors.

The decorations of these vases are unequalled for elegance, in arrangement of ornament, or grouping of figures.

We would refer our readers who are interested in their history to "Birch's Ancient Pottery" and "D'Hancarville's Vases Etrusques," &c., &c.

Ancient Roman pottery is as common in England as it is in Rome, and the wares are so characteristic that we cannot mistake them.

The Samian red ware is the same whether found in England, France, Germany, or Italy.

The common earthen bottles and jars for daily use vary only as the clay of the locality produced a different colour in the burning or a different texture in the material.

It would seem that the Roman potter travelled with the camp, for wherever a station was formed there a local pottery is sure to be discovered. Roman pottery and Roman coins are found throughout England in such extraordinary numbers that they would almost appear to have been sown broadcast together.*

Mr. Wright, in his interesting work "The Celt, the Roman, and the Saxon," in writing of Roman pottery in Britain, says—"If we go up the little creeks in the Upchurch Marshes at low water, and observe the sides of the banks, we shall soon discover, at the

* A collection of about 30 vases of Roman pottery, which were dug up just outside the Worcester Porcelain Works, may be seen in the Worcester collection.

depth of about three feet, more or less, a stratum, often a foot thick, of broken pottery. This is especially observable in what is called Otterham Creek, and also in Lower Halstow Creek, where it may be traced continuously in the banks and may be brought up by handfuls from the clay in the bed of the creek. This immense layer of broken pottery, mixed with plenty of vessels in a perfect or nearly perfect state, has been traced at intervals through an extent of six or seven miles in length and two or three in breadth, and there cannot be the least doubt that it is the refuse of very extensive potteries which existed probably during nearly the whole period of the Roman occupation of Britain, and which not only supplied the whole island with a particular class of earthenware, but which perhaps also furnished an export trade; for we find urns and other vessels precisely similar to the Upchurch ware in considerable quantity among the Roman pottery dug up in the neighbourhood of Boulogne." Thus early did the clay of Britain begin to furnish pottery for the world.

The colour of the Upchurch pottery is a blue black, produced by being baked in the smoke of vegetable substances. The ware itself is of a fine hard texture, and the variety of forms almost infinite.

From classic pottery we pass to that of the Middle Ages, which Jacquemart thus introduces in his elegant work :*

"The luxury of the later times of the Roman Empire would have the effect of reducing to nothing, ceramic industry; a people clothed in purple and silk, and covered even to their shoes, with embroidery, pearls, and precious stones, would not tolerate around them rude earthen pottery, even though enriched with the elegant but sombre decoration of the Greeks."

* History of the Ceramic Art, translated by Mrs. Bury Pallisier.

ITALY.

In the earlier years of this period we find that the workshops of ITALY provided lamps for the countryman, utensils for the poor, and stone vessels for oil and wine, but all without artistic taste.

From the eleventh to the fourteenth century, Italian pottery, more or less elaborate in its character, was amongst other uses applied to architectural monuments, many pieces remaining to this day, and bearing testimony to the extraordinary durability of pottery.

In the fourteenth century or early in the fifteenth, arose one of those men whom history has delighted to honour—Luca Della Robbia devoted his youth to the study of the goldsmith's art, but having tried his hand upon sculpture and being successful, he (according to Vasari) sought for a more expeditious process than his chisel to execute the orders pressing upon him. He had been accustomed to model in clay, and it was but one step in advance to burn his model and so harden it—the next, to protect the porous body by covering it with an impervious enamel—compound of tin and lead.

Those who have examined the fine specimens in this country, but more especially the grand works remaining in Florence, whether in *situ* or in the museum, must admire the sublime character of this work as well as its wonderful durability.

A little later in the century the potteries of Urbino, Gubbio, Castel Duranti, and Faenza, sent forth those lovely specimens which charm all beholders—and to copy even the meanest of which seems the summit of the ambition of the modern Italian potters. Let us then distinctly record as the middle-age potters of Italy—

Luca Della Robbia, the sculptor ;

Maestro Giorgio, the painter.

Although we name these as the special potters of Italy, we must not omit to say that other states and cities of Italy had their clever artists.

Pesaro,	Forli,
Verona,	Pisa,
Deruta,	Caffagiolo,
Siena,	Castelli,
Bassano,	Padua,
Naples,	Venice,

have all been mentioned by Piccolpasso in his "Les trois Livres l'art du Potier," as famous for the works sent forth by their potters.

GERMANY AND HOLLAND.

GERMANY and HOLLAND have both contributed their share to the pottery of the Middle Ages.

Nuremberg examples may be found in all museums and collections of pottery, and they are characteristic—particularly in the specimens of tiles and stoves. Most travellers will remember that, which is said to be the finest example known, in the Castle of Salzburg.

Cologne ware is undoubtedly pottery, but it is of quite a different character to any hitherto described. It is what is called in England stone ware ; in Germany, steingut ; in France, Gres-Cérame.

The best examples consist of fanciful and grotesque jugs, called cannetts, bellarmine, grey beards, &c., &c. The subjects with which many of these pieces are decorated make them very interesting, being arms of families and towns, scriptural and rural scenes—for the most part admirably executed.

The Delft ware of Holland was formerly the best known in England of continental potteries. It has given a general name to English earthenware, which was, and in many places still, is called delph.

This ware approached in material nearer to Italian Fayence than any other European fabric. The body is of a similar coarse greyish ware, and the glaze is an opaque tin enamel.

The decorations of Delft ware were chiefly copies of Chinese subjects in blue. This may be to a large extent accounted for by the extensive intercourse of the Dutch with China and Japan in the 16th and 17th centuries.

Copies of Dutch pictures and many other styles may also be seen on Delft ware, and most people are familiar with the character of Dutch tiles.

As this manufacture was carried on for many years, so the trade progressed, until in the middle of the 17th century there were about 50 potteries employing about 7,000 people. At present, we believe, not more than one of them remains.

Some of these wares produced in the 16th century were remarkable both for design and execution. The models of birds and figures, the large plaques and vases, all showed artistic talent.

FRANCE.

FRANCE has contributed her share to the pottery of Europe.

The wares of Nevers and Rouen were the most remarkable in the 17th, and those of Moustier in the 18th centuries. But France has produced two other potteries which are unique, viz., the so-called Henri II. and the Palissy wares. The former, now properly called *Faïence D'Oiron*, has long been the sphynx of pottery. And we are indebted to M. Benjamin Fillon of Poitiers, for the solution of the mystery which surrounded it.

Chaffers, in his later editions, has given a full account of this discovery, as well as a descriptive list of all the known pieces, their owners, prices, and estimated value.

This pottery, for elegance of design and refinement of execution, has no equal. Although produced in France, the style is not French, but rather that of the Italian Renaissance.

The method of manufacture is very original, the ornamentation being produced by inlaying clay of a darker colour in engraved lines on the delicate surface of the ware. This is a true pottery

decoration, and ought to be appreciated. The same patterns and effects could have been produced by painting with colour—indeed, it has been suggested that such was the method used—but the true method was proved by Brongniart, who in his “*Traité des Arts Ceramiques*” enters fully into the technique of the process.

Amongst the many notable names recorded in the history of pottery there is not one which claims higher respect than that of Palissy, whether as an ingenious potter or as a consistent Christian.

The following notice, extracted from Mr. Morley's Biography, will be found interesting:—

“The character of this great improver of his art was strongly marked, not only by patience, perseverance, and sagacity in the pursuit of his purpose, but by eminently high moral firmness and unshaken rectitude. No example can be found of one to whom the well-known lines of the poet are more truly applicable—

“ ‘The man in conscious virtue bold
Who dares his secret purpose hold,
Unshaken hears the crowd's tumultuous cries,
And th' impetuous tyrant's angry brow defies.’ ”—FRANCIS.

Palissy was a conscientious Protestant, and did not hesitate publicly to express and avow his opinions even in his discourses on subjects of his art.

It is related of King Henry III., that finding no other way of saving himself from the imminent danger in which he was placed by the extreme Catholic party in 1585, he issued a decree prohibiting the future exercise of the Reformed worship on pain of death.

Palissy was then an old man of seventy-six, still teaching philosophy and still superintending his workshops in the abandoned palace of the Tuilleries. He was known, however, as a Huguenot, and no Royal ordinance could alter his conviction or drive the sturdy potter, in alarm, out of the way he had chosen as the way of truth. It was said of the old man, “He regardeth not thee, O King, nor the decree that thou hast signed;” and Palissy was sent to the Bastile.

Sentence of death, executed upon many who remained unmoved in their worship by the King's decree, was delayed, in the case of Master Bernard, only by the artifice of friends in power, and chiefly the Duke of Mayenne, who caused all possible delays to interrupt the suit against him.

Four more years of life remained to Palissy, all spent within the four walls of his prison.

After a time two fair girls, daughters of Jacques Foucaud, attorney to the Parliament, condemned like Bernard for their firm religious faith, shared with the potter his captivity. The old man and the girls sustained each other, and awaited death together.

For the death of the unsentenced Reformer the Sixteen* were clamorous; one of them, Mathieu di Launay, solicited especially the public execution, already too long deferred, of the old Potter.

This happened in the year 1588, when Palissy was seventy-nine years old, and the age of the king was thirty-seven.

The King—starched, frilled, and curled, according to his own fantastic custom, frequently visited the prisons, and felt interest in the old man, whom he regarded as an ancient servant of his mother.

Finding that his age would not protect him from the stake, the King one day held with the potter this discourse which has been preserved for us in a contemporary record:†

“‘My good man,’ said the King, ‘you have been forty-five years in the service of the queen, my mother, or in mine, and we have suffered you to live in your own religion, amidst all the executions and massacres. Now, however, I am so pressed by the Guise party and my people, that I have been compelled in spite of myself to imprison these two poor women and you; they are to be burnt to-morrow, and you also, if you will not be converted.’”

* The Catholic League.

† Confession de Sancy, chap. vii.

“ ‘Sire,’ answered the old man, ‘you have said several times that you feel pity for me; but it is I who pity you, who have said, *I am compelled*. That is not speaking like a king. These girls and I, who have part in the kingdom of heaven, we will teach you to talk royally. The Guisarts, all your people and yourself, cannot compel a potter to bow down to images of clay.’ ”

The girls were burnt a few months afterwards, in June, 1588. The news of their death reaching the Huguenot Camp, Monsieur de Plessi said to the King of Navarre, shortly to be King Henry IV. of France, “Courage, sire, since even our girls can face death for the gospel.”

King Henry III. was stabbed to death, by a monk, in the year 1589. In the same year Palissy the potter died in the Bastile.

The works of Palissy are characterised by a style and qualities peculiar to himself, most of the pieces, and especially the dishes and plateaus, are surcharged with objects in coloured relief, and evidently were designed more for ornament than use.

The natural objects represented are remarkable for truth of form and colour, having been for the most part moulded from nature.

RUSSIA, SWEDEN, AND DENMARK.

Little is known of Russian pottery during the middle ages, but according to Chaffers, Peter the Great induced some potters of Delft to emigrate about 1700.

At Rorstrand, near Stockholm, pottery was made in 1727.

Marieberg pottery was established in 1750; it ceased about 1780. This establishment was one of the earliest in adopting the invention of transfer printing.

Helsinberg, Kiel, and Copenhagen are also named as having potteries in the last century.

SPAIN AND PERSIA.

Spain, like other countries of Southern Europe, has produced a pottery which is sufficiently distinct in its character to take a name. It is generally distinguished as Hispano-Moresco, and the title at once reveals a style.

As a pottery it is not to be compared with the Italian, although made of similar material. The ornaments consist, more or less, of Moorish designs of fantastic animals, scrolls, and shields painted in metallic lustre of gold or copper colour.

The most perfect works of this class are the Azulejos of the Alhambra of the 13th century; but these wares are claimed as Arabic pottery introduced into Spain by the Moors.

Persian Fayence will always command attention from the beauty of its colours and the character of its designs. The ware is a coarse grey or white paste covered with a fine hard glaze; the colours are a lovely turquoise, a fine blue, an emerald green, buff, a black, and red.

This ware has been sometimes called Rhodian ware, but the most experienced collectors assign it to Persia. (See Mr. Chaffers on this subject.)

ENGLAND.

England has a middle-age pottery as well as other nations, but we cannot pronounce any flattering encomiums upon its art qualities.

It is strange that having had Roman forms so plentifully distributed all over the country the national pottery should be everywhere distinguished by its ugliness. It is also strange that England, the last of European nations to improve the art, should now be universally assigned the foremost place among potters.

The most interesting account of pottery of this period will be found in Mr. Chaffers' "Vasa fictilia of England." He says:—

"From the seventh to the fifteenth century, a period of nearly 800 years, but few examples of pottery that can with certainty be

appropriated have been handed down to us, and when they do occasionally appear in the excavations in and about the metropolis, there are so few distinctive characteristics about them that it is almost vain our attempting to identify them with any particular century within this wide range.

“We must consider them merely in regard to their utility and domestic economy, and not to their elegance of form or fineness of material, for in these respects they present a lamentable decline from the Greek and Roman periods, when vessels of the coarsest clay had a pleasing effect.

“We do not, therefore, speak of them as works of art, but as of homely manufacture and domestic use, which, from their fragile nature and comparative insignificance as to value, have in few instances withstood the shock of time, or been thought worthy of preservation.”

We must not close our remarks upon pottery without mentioning the special feature of the last century in connection with it.

English earthenware, a white flinty body with a fine smooth transparent glaze, was introduced about the middle of the last century. Wedgwood's* Queen's ware may be pronounced the most perfect example of this useful pottery. Leeds about the same time introduced a similar article, which was very popular.

From a long array of names, those of Minton, Spode, Copeland, Wood, and Mayer, may be selected as successful potters who have done honour to the art.

This English earthenware has now obtained such a hold upon the requirements of the public, not only at home but abroad, that it has become one of the most important manufactures of the country.

The history of English pottery is full of interest, and has found many recorders. Marryat, Meteyard, Chaffers, and Jewitt may be consulted with both profit and pleasure.

* Wedgwood's pottery and beautiful wares are of so much importance that rather than give an imperfect epitome of their history we refer our readers to Miss Meteyard's elegant and exhaustive history.



Porcelain.



ORCELAIN has a dense body, a vitreous fracture, a sharp clear ring when struck, is semi-transparent, and very durable.

Porcelain is undoubtedly of Oriental origin, the Empire of China having produced it some hundreds of years before it was known in Europe.

Some writers have thought that the fabric was suggested by that beautiful pebble *jade*. However that may be, until the last century China produced finer specimens and greater varieties of true porcelain than any other nation. The potters seem to have revelled in their art: they loved it for the intense pleasure which may be said always to attend the plastic art, where the clay seems to obey even the thoughts of the artist, and also from the fact of being able to produce so much that was interesting and beautiful from such simple and inexpensive materials.

M. Stanislas Jullien has written the best history of Chinese porcelain, and he states that *Pottery* was invented there in the year 2698 before the Christian Era; but *Porcelain* was first made between 185 and 80 years B.C., which would be 1600 years before it was made in Europe.

M. Jullien's account is very interesting, but too long to be inserted here. Mr. Chaffers gives an epitome of it with the principal marks, in his later edition of "Marks and Monograms."

Japanese porcelain is said not to have obtained perfection until the 13th century, but some specimens of that period are really wonderful. This nation seems to have courted difficulties. In making large dishes they have no rivals. The same may be said of their egg-shell porcelain, with which they seem to be always playing tricks.

Perhaps the most curious, and, as we believe, the most difficult of these experiments is that of forming a true Cloisonne enamel on the surface of the porcelain. Egg-shell specimens with basket-work beautifully wrought on bottles, cups, &c., are also very ingenious.

At the Philadelphia Exhibition the display of Pottery and Porcelain by this nation was very interesting, showing not only remarkable power over the material, but high artistic ability both in modelling and painting.

Mr. Soden Smith's papers on the subject are very interesting.





European Porcelain.

I T A L Y.



T has only recently been discovered that the first porcelain made in Europe was manufactured at Florence under the patronage of Francisco I. (de Medici), Grand Duke of Tuscany, about the year 1580.

The porcelain produced at this time can scarcely be considered a true porcelain, although it made a better claim to that title than the first porcelains produced in Europe 100 years later. The manufactory was not continued for more than about 20 years, and there are only about 30 pieces known. Mr. Chaffers gives the names of their owners.

In the 18th century, when every kingdom in Europe was establishing State potteries and striving for that reputation which nearly all were destined to attain in future years, Doccia Works, near Florence, were founded (in 1735) by the Marchese Ginori, and have been continued to the present time.

In the following year the celebrated Capo di Monte manufactory at Naples was founded by Charles III.; it was continued until 1821, when the moulds, &c., were transferred to the Doccia establishment and the style has been continued, but without the beauty of the originals.

VENICE had a manufactory of porcelain from 1715 to 1812. Its history is interesting. (See Chaffers).

SAXONY.

The famous works of Meissen were commenced about 1706, and their romantic story has been so often told that we need not repeat it in our little Guide Book.

These works have had their fluctuations (caused principally by Continental wars), but are still maintained and have been a great success.

A few years ago a new manufactory was built in a beautiful valley about a mile from the town. The site of the early works—the Castle of Albrechtsburg—overlooking the Elbe, was certainly the more charming, but for convenience of trade the new works have great advantages. The railway runs into them, bringing all the materials and taking away the manufactured goods.

It is said they produce a large profit to the King. It appears to us that profit is more considered than progress, the display of Dresden china at the Vienna Exhibition being very inferior to that of France or England.

PRUSSIA.

The Manufactory at Berlin was established in 1751, but its reputation for artistic work did not commence till 1763, when King Frederick the Great purchased the works, and it became a Royal Establishment.

The King had despoiled Meissen during the seven years' war of its finest models and best workmen, and spared no pains to make it successful. It is still the Royal establishment of Prussia.

CHARLOTTENBERG, near Berlin, was established in 1760, and is still carried on by the Government.

HÖCHST was founded in 1720, and continued till 1794.

GERMANY.

NUREMBERG made porcelain as early as 1712.

FRANKENTHAL commenced in 1754.

NYPHENBURG was the result of a combination with Neudech, and in 1758 was under the protection of Maximilian Joseph, Elector of Bavaria.

ANSPACH dates from 1718.

FURSTENBURG is a Government establishment belonging to the Duke of Brunswick ; it commenced in 1750. The style of its works and the character of its porcelain are similar to Meissen.

KRONENBURG, or LUDWIGSBURG, produces porcelain of a similar character, and was established in 1758.

VOLKSTADT, RUDOLSTADT, REGENSBURG, WALLENDORF, GROSBREITENBACH, THURINGIA, LIMBACH, are all mentioned as producing porcelain in the 18th century.

RUSSIA AND POLAND.

ST. PETERSBURG had a porcelain works established in 1744 ; the style adopted being that of Meissen.

MOSCOW claims notice from having, at an early period, sought to obtain some of the Meissen workmen ; it commenced in 1717, and has been continued under varied fortunes.

KORZEC, in Poland, commenced to manufacture porcelain in 1803.

SWEDEN, DENMARK, AND NORWAY.

MARIEBERG made a soft paste porcelain in 1750.

COPENHAGEN made a hard paste in 1772. This manufactory is continued to the present time.

In SWITZERLAND, porcelain was made at Zurich and Nyon.

HOLLAND.

WEESP may be noticed as the parent of Amstel. The first manufactory commenced in 1764.

LOOSDRECHT sprung from the remains of Weesp, in 1772, and in 1782 the manufactory was removed to Amstel, where porcelain was manufactured till 1810. The produce of these several works was all of the Saxon character.

In the HAGUE porcelain was manufactured about 1775, but the works closed in 1786.

FRANCE.

ST. CLOUD.—These works have a special interest from being the grand-parent of Sèvres. They were commenced as early as 1695, thus preceding the works at Meissen by at least 10 years.

The porcelain made at this manufactory was always soft paste, and was a composite body, having the different materials fritted together as was the case at Florence, and all other manufactories of soft paste both at home and abroad.

The account of the commencement of this establishment is very interesting, and may be found in "Jacquemart."

At LILLE, PARIS, and CHANTILLY, soft porcelain was made at the beginning of the 18th century.

VINCENNES followed the example of St. Cloud, and was the immediate parent of Sèvres.

It would appear that nearly every china works has a sort of romance attached to its commencement—those of which we are writing are no exception.

In 1753, the King Louis XV. took a third share in the works, which then assumed the title, "Manufacture Royale de Porcelaine de France." From this period dates the adoption of the cross L's, with the chronogram letters—A for 1753, B 1754, &c.

Success was now achieved, and more room being required to increase their productions, the Company established themselves in 1756 at Sèvres.

SÈVRES.

The productions of this world-famed establishment have been so often fully described that we shall simply quote the introduction given by their ardent admirer "Jacquemart" :—

"From its origin, the Royal manufactory of 'Porcelain de France' has applied itself to the production of coloured flowers for ornaments, lustres, girandoles, and gilded bronzes. It created at the same time vases of great ornamentation, of the most elegant and varied forms. The 'Salles des Modeles,' reformed with so much perseverance by M. Riocreux, but now destroyed by the Prussians, could alone give an idea of their number and importance.

"Scarcely would the rich collections of the Rothschild family, Sir Richard Wallace, M. Leopold Double, and Madame Heine, the important series united in England by the Queen and the great collectors of the country, suffice to give an idea of these masterly compositions. *In fine, they combined all that the genius of sculptors, painters, and goldsmiths united in one common thought have been able to conceive as most rich and elegant.*"

Soft paste porcelain was also made at Sceaux, at Orleans, ETOILLES, and ARRAS.

BELGIUM.

A soft porcelain of peculiar character has been made at Tournay, in Belgium, from an early date, and an extensive business has of late years been done in copying Old Sèvres models, decorations, and *marks*.*

At LILLE a soft paste porcelain was made as early as 1711, but discontinued about 1795.

* We are informed that OLD WORCESTER is now manufactured at Tournay and many other places on the Continent.

HARD PASTE, which is that peculiar porcelain now made all over Europe, was not introduced at Sèvres until 1768. As its discovery in Germany was connected with the story of Böttcher's wig, so in France it was introduced with the story of Madame Darnet's soap.

Although these stories are generally known, there are still many persons interested in porcelain who are ignorant of them. We will therefore venture to repeat them.

In 1709, Böttcher had succeeded in making a refractory pottery of *red* clay. To a man desiring to imitate Chinese porcelain, it was deficient in two most important features—colour and glaze. The latter, Böttcher supplied by polishing the ware on the lathe, and many pieces finished in this way are extant, in private collections as well as in the Japan Palace at Dresden. This was of course a very expensive method of working, and only affected the outside of the ware, but the colour was a greater difficulty, as no white earth capable of standing great heat could be found. Chance, however, favoured the potter. One day, feeling his wig more heavy than usual, he examined the powder which covered it, and saw that they had substituted a mineral powder for the customary fecula. Having called his valet, he learnt that lately a man named Schnorr* had found this powder in the environs of Aue, and was selling it everywhere. Tried in the laboratory, it was recognised by Böttcher as kaolin, and true porcelain was the result.

1767.—In FRANCE there had long been the desire to manufacture hard paste, but the secret could not be discovered. The directors of Sèvres had endeavoured to buy it, but were disappointed in all their efforts. Chance here, as at Meissen, favoured the potters. Madame Darnet, the wife of a village surgeon,

* John Schnorr, one of the richest ironmasters of the Erzgebirge, when riding near Aue, observed that his horse's feet stuck occasionally in a soft white earth, from which the animal could hardly extricate them. Hair powder being then much in use, he had a specimen of this white clay prepared, and sold large quantities at Dresden for the use of the barbers.

residing at Yrieix, near Limoges, accidentally found in a valley in the neighbourhood of that town a white unctuous earth, which she thought might be rendered useful in the washing of linen. With this purpose she showed it to her husband, who, better informed, suspected other and more valuable properties in it, and undertook a journey to Bordeaux to submit it to a chemist of that place named Villaris. This person, who had already been informed of the qualities necessary for porcelain clay and of the eagerness with which it was sought for, suspected that the specimen brought to him by M. Darnet possessed these qualities. It was accordingly sent to Macquer, the chemist, at Sèvres, who was then occupied in experiments on the improvement of porcelains. He immediately recognised in this specimen of clay the true kaolin, and went to St. Yrieix in August, 1768, where he found a large vein of this precious material. Experiments were made with it upon a considerable scale at Sèvres, where all doubts upon the subject were removed; and the kaolin of St. Yrieix, near Limoges, was immediately adopted as the material, and the fabrication of hard porcelain was commenced.

Brongniart completes this story with an interesting anecdote. He says that in 1825, being at Sèvres, where he was still director, an aged woman addressed herself to him one day supplicating temporary relief, and apparently suffering from extreme want. She asked for aid to enable her to return on foot to St. Yrieix, whence she had come. This woman was Madame Darnet, the discoverer of the kaolin of Limoges. The relief she sought was immediately given to her; and, on the application of M. Brongniart, Louis XVIII. granted her a small pension on the civil list, which she enjoyed till her death.

The manufacture of hard paste porcelain has been carried on in many places in France, but more especially Sarreguemines, Creil, and Paris, but at the present time Limoges is "the potteries" of France. Many potteries of eminence are established there, and they find extensive markets all over the world.

ENGLAND

was not long behind the countries of the Continent in producing porcelain. Indeed it would appear from recently discovered papers and receipts given by "Chaffers," in the late edition of his "Marks and Monograms," that at Fulham, porcelain was made by Dwight before it was made either in France or Germany.

It was of course a composite or fritt body.

The next porcelain manufactory was established at the extreme east of London, at Bow, which continued from about 1730 till about 1775.

CHELSEA WORKS were founded about 1747, and had a great success under the patronage of the Duke of Cumberland. They were closed in 1769, when Mr. Duesbury, of the Derby Works, purchased all the moulds, models, &c., and removed them to Derby.

THE DERBY WORKS were founded in 1750, by Mr. Duesbury, of Longton, Staffordshire. They were closed, after varied fortunes, in 1848.

Porcelain works of importance were founded in LOWESTOFT in 1756. They were closed about 1803.

There has been and is still much dispute as to the porcelain produced at these works, a certain class of Chinese porcelain being assigned by some collectors to Lowestoft.

The writer believes that much of this ware was made in China and decorated either in Holland or at Lowestoft, as the porcelain is decidedly Oriental, whilst the decoration is in many cases imitation Oriental or ordinary English work.

CAUGHLY Porcelain Works, the parent of Coalport, were commenced in 1772 under Turner, who had learned his business at the Worcester Works. These works, under the name of Coalbrookdale or Coalport, to which place they were removed in 1780 by Mr. Rose, are carried on to the present time.

Porcelain was made at Plymouth about 1768, when Cookworthy, having discovered the kaolin in Cornwall, obtained a patent for its use.

From Plymouth this manufacture was transferred to Bristol in 1772, where fine porcelain was produced until 1777, when the patent was sold to The New Hall Company in Staffordshire, which works were closed in 1825.*

Porcelain was made at SWINTON, near Rockingham, in the early part of the present century. The works were closed in 1842.

SWANSEA and NANTGARW, in Wales, have produced some beautiful porcelain. Both establishments were closed about 1820.

In Staffordshire the names of clever potters have been so numerous that we must be content with merely mentioning two or three, although many of the establishments have an interesting history attached to them.

Spode was one of the earliest porcelain makers, and he has the reputation of having introduced bones into the composition of English china about 1800. The firm is still continued under the well-known name of Copeland.

Daniel made fine porcelain about 1826.

Mason not only made porcelain, but introduced a patent body called ironstone china. It was a white vitrefied stone ware, and very durable.

Davenport is one of the oldest names in the Potteries, and the family has carried on extensive works in earthenware, ironstone, and porcelain.

Minton commenced in 1791, and the firm has enjoyed an uninterrupted career of success. Mr. Herbert Minton introduced several improvements in porcelain, and by his energy and enterprise raised the porcelain of England to the highest standard and his works to a world-wide celebrity.

WORCESTER.

The Royal Porcelain Works being the special subject under consideration, we shall enter more fully into its career than we have attempted with other establishments however celebrated.

* For particulars of these works, see Mr. Owen's interesting account.

In the year 1751, and for a few years previously, the City of Worcester required an occupation for its people. The cloth trade had left the city. Carpets and gloves did not afford sufficient employment—at least so thought a number of gentlemen who wished to use the workmen of the city for political purposes, viz., to withstand the Jacobite tendencies of the time.

Porcelain manufacture as an occupation was engaging the attention of the Princes of Europe, it was enjoying a reputation in England at Bow and Chelsea, and its artistic and scientific labours were such as to enlist the sympathies of everyone desirous of improving the trade of the country and the tastes of the people.

Worcester had neither coals, nor clay, nor skilled hands, but “the faithful city” had Doctor Wall, a talented physician, a clever chemist, and an accomplished artist. By his scientific skill he produced one of the most beautiful porcelains in Europe—which is even now the admiration of connoisseurs—and to his judgment and enterprise the concern was indebted for the first 30 years of its success.

The Worcester Company made a fine porcelain from the commencement, and decorated it after the Chinese taste according to the prevailing models. The designs at this time were nearly all painted in blue.

In 1756 transfer printing was introduced, both with finely-engraved black prints on the glaze and with blue prints under the glaze, which could with difficulty be distinguished from the painted subjects.

The styles adopted at Worcester were very varied, but were generally selected from the finest examples of Japanese and Chinese and Dresden manufacture, as well as the very beautiful wares of Sèvres and Chelsea; but whatever style was produced it was made to bear a Worcester character, and, with the exception of Chelsea, no English works bear evidence of so much loving care in their production. It is certain that from about 1760 to 1775 some extremely beautiful wares were produced,

both in vases and services. The specimens which have lately been brought to light have never been excelled in England.

Doctor Wall died in 1776, and the remaining partners carried on the works with spirit and success until the year 1783, when the whole establishment was sold to Mr. Flight, of London. The business was conducted by his two sons, Joseph and John, till 1792.

In 1788 George III. visited the Worcester works, and granted his warrant permitting the establishment henceforth to be called "Royal."

In 1793 Mr. Barr joined the concern, and the firm of Flight and Barr commenced. It continued without variation until 1807, when Mr. Barr, jun., was taken into partnership, and the title was altered to Barr, Flight, and Barr, which lasted until 1813. On the death of Mr. Barr, sen., a younger son was taken into partnership, and the firm changed to Flight, Barr, and Barr, which was continued till 1840, although Mr. Flight had died in 1829. The establishment was united to that of Messrs. Chamberlain in the former year, (1840).

Mr. Chamberlain, who had been engaged with the original company under Dr. Wall, left the works when they were sold to Mr. Flight, and commenced business on his own account.

The firm from 1786 to 1798 was Robert Chamberlain, sen., Humphrey Chamberlain, and Richard Nash (sleeping partner). From 1798 to 1804 the firm was Humphrey Chamberlain and Robert Chamberlain, jun. From 1804 to 1811, Humphrey Chamberlain, Robert Chamberlain, and Grey Edward Boulton (sleeping partner). From 1811 to 1827, Humphrey Chamberlain and Robert Chamberlain. From 1827 to 1840, Walter Chamberlain and John Lilly.

The united firms in 1840 were constituted a Joint Stock Company—

Walter Chamberlain,	Martin Barr,
John Lilly,	George Barr,
and Fleming St. John,	Managing Directors.

The Company was dissolved in 1848, and the firm was again Walter Chamberlain and John Lilly.

In 1850 another change was made, and the style became Walter Chamberlain, Frederick Lilly, and W. H. Kerr.

From 1852 to 1862, W. H. Kerr and R. W. Binns.

In 1862 commenced the present Joint Stock Company.

In the early part of the present century Worcester had few competitors in the manufacture of first-class porcelain. The patronage of the King and Royal Family, which was liberally accorded, stimulated the production of both fine porcelain and artistic productions. A special body called Regent Porcelain was invented by Mr. Chamberlain for the Prince Regent, and obtained great favour from the Court, but being very costly in its production it was discontinued after a few years, other improved bodies taking its place, having equal durability of wear and beauty of appearance.

Messrs. Chamberlain entered largely into the manufacture of porcelain buttons made of dry clay by pressure, but a dispute about the patent in 1850 and the introduction of a similar article from France put an end to the business.

The manufacture of encaustic tiles was also introduced by Messrs. Chamberlain. These had a great and deserved success. This business was transferred to Messrs. Maw in 1851, and by them shortly after removed to Broseley, where the establishment has been greatly extended, and obtained a very high position from the artistic character of its productions.





MARKS ON WORCESTER PORCELAIN.



IN publishing the marks on Worcester porcelain we desire to state, for the benefit of collectors, that many of the best specimens are not marked, and a large number bearing marks of repute are of little value. It does not, therefore, follow that because a piece is marked it is of high value. Advantage has been taken of the popular demand for certain marks, and they are freely manufactured both at home and abroad.

The marks we give have been found upon old Worcester porcelain, but many of them are only copies of Oriental devices. The painter, in copying the patterns from some Oriental piece, has completed his work by copying the device on the back also. But it is evident that such mark was not intended to deceive, as in many cases the Worcester crescent is placed along with it.

Nos. 1, 2, 3, appear on all kinds of Worcester china from 1752 to about 1800. The crescent is the true Worcester mark ; it was taken from one of the quarterings in the Warmstry arms.

Nos. 4 and 5.—The crescents, with addition, are not common ; they are generally on blue ware.

Nos. 6, 7, 8, 9, 10.—The W mark is found on a great variety of patterns of early date.

Nos. 11, 12, 13, are the square marks so much sought after, and at present so freely forged.

Nos. 14, 15.—Also square marks, but not so common.

Nos. 16 to 22 are copies of Chinese and Japanese patterns, and generally appear on wares of that class.

Nos. 23 and 24, and 28 and 29, are imitations of the Dresden mark, but they appear on many styles of ware, sometimes even on black print.

Nos. 25, 26, 27 appear only on black transfer prints between 1756 and 1774.

No. 30 has been found impressed in the ware 1783 to 1791.

No. 31.—In blue under glaze for the same period.

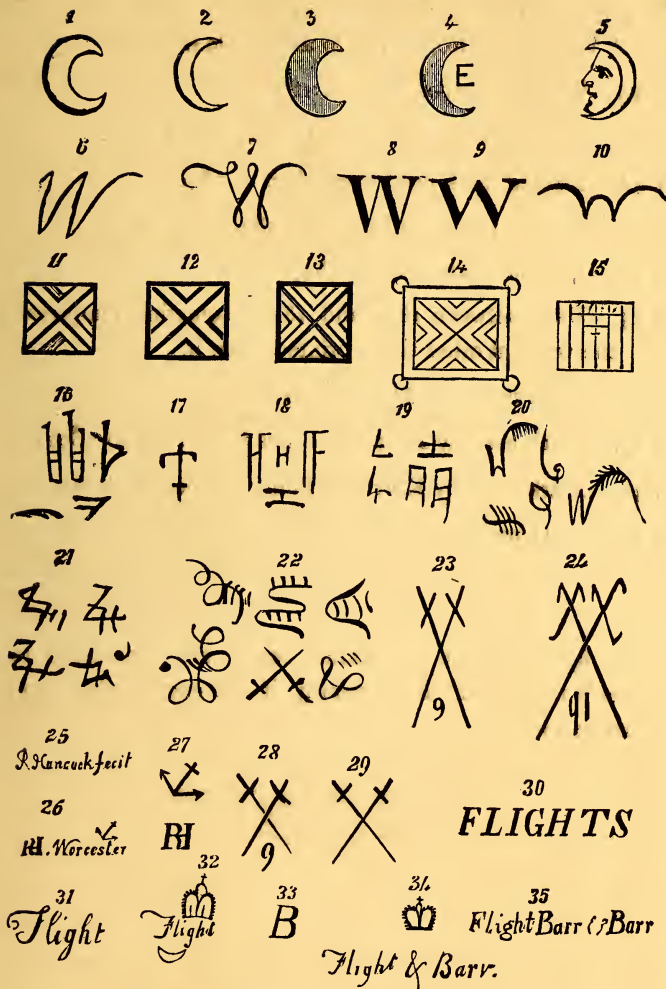
No. 32 appears on the Royal service made for the Duke of Clarence.

No. 33.—This letter is found scratched in the clay after Mr. Barr was taken into partnership ; from 1793 to about 1800.

No. 34.—From 1793 to 1807.

Nos. 35 and 37.—From 1807 to 1813.

Nos. 36 and 38. — From 1813 to 1840.



36

BARR FLIGHT & BARR.
 Royal Porcelain Works.
 WORCESTER.
 London House.
 No 1 Coventry Street.

37
FBB


38

BFB

- No. 39.—Used by Chamberlains, written with and without
“Worcester,” from 1788 to about 1804.
- No. 40. Written on specimens in 1814.
- No. 41.—Printed mark used from 1814 to about 1820.
- No. 42.—Printed mark used from 1820 to 1840.
- No. 43.—Printed mark used between 1840 and 1845.
- No. 44.—Printed mark used in 1847.
- No. 45.—Used between 1847 and 1850; sometimes impressed in
the ware, at other times printed upon it.
- No. 46.—Mark used in 1850 and 1851.
- No. 47.—Mark used by Kerr and Binns from 1852 to 1862.
- No. 48.—Mark used by Kerr and Binns on special pieces.
- No. 49.—Mark used by the present Company from 1862.


The figures in the concluding series are considered to be
workmen's marks, and are generally, if not exclusively, found on
blue painted wares.



39
^P
Chamberlains
 Worcester
 & 63, Piccadilly,
 London.
 42

Chamberlains
 Worcester,
 & 155,
 New Bond Street, London.
 Royal Porcelain Manufacturers.

41

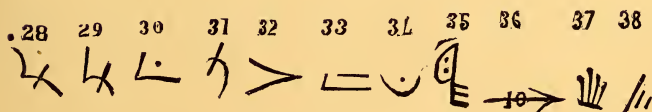
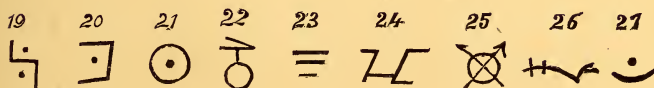
Chamberlains,
 Regent China,
 Worcester
 & 155,
 New Bond Street
 London.

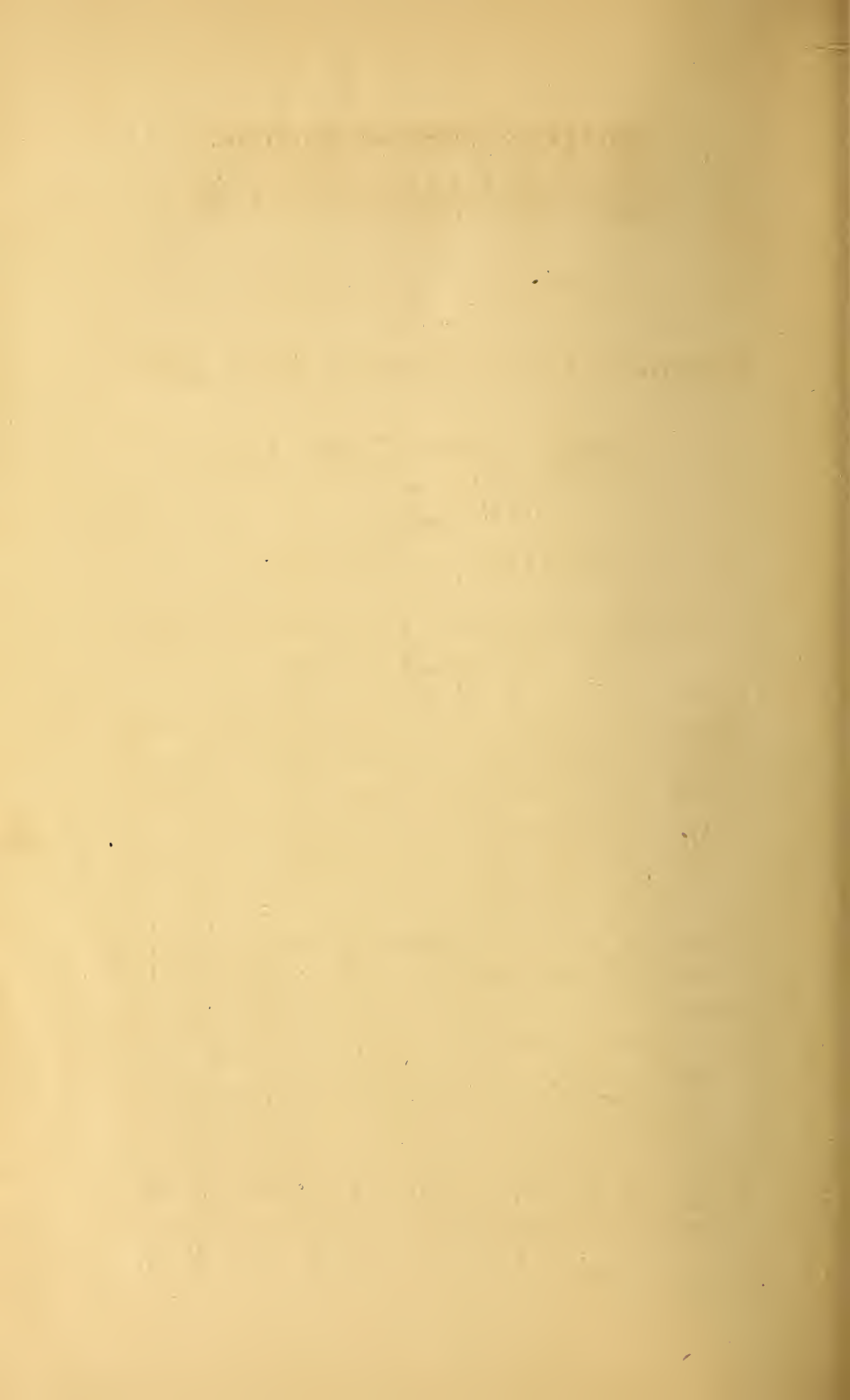
43

 CHAMBERLAIN & CO.,
 WORCESTER
 155 NEW BOND ST.,
 & NO. 1,
 COVENTRY ST.,
 LONDON.

44
Chamberlain & Co. Worcester,



45
 CHAMBERLAINS







PUBLIC OPINION
ON THE
Productions of the Worcester Royal Works
AT THE
VIENNA EXHIBITION, 1873.

Award :

DIPLOMA OF HONOUR
AND
SEVEN WORKMEN'S MEDALS.



SINCE the year 1851 the productions of the Worcester Porcelain Works have been so frequently before the public at the various International Exhibitions that the official reports may be considered the most satisfactory evidence of their progress. We therefore introduce some extracts as the conclusion of our guide.

The *Art Journal* has published a series of articles, by Professor Archer, President of the Royal Scottish Society of Arts, relating to the progress of our art industries. In the July number appeared an article on the Worcester Royal Porcelain Works, from which we extract the following :—

“ From the establishment of this manufactory by the scientific Dr. Wall, in 1751, to the present time, the history of Worcester porcelain has been one of the most creditable. It from time to time produced remarkable results, and still continues to do so in a manner which shows no decrease of talent, taste, or enterprise in

its management. On the contrary, every one who has watched the career of the present indefatigable manager, Mr. R. W. Binns, cannot but feel that this notable factory is not likely to lose in fame while in his hands. A master of his art from every point of view, that is to say chemically, technically, and artistically, and a reliable authority in all that relates to the literature of the potter's art, Mr. Binns pursues his vocation with an earnestness and a judiciousness which ensure success. Since the beginning of the decade (1852-1862) which witnessed his introduction to the proprietary of the firm, Mr. Binns has given us a constant succession of agreeable surprises; recognising fully the fact that exactly in proportion to its capability of receiving decoration, porcelain judiciously treated, even in the smaller pieces, becomes highly decorative; and that, without losing sight of its application to the wants of every-day life, it can be made to add a charm to the domestic arrangements of the table, and enrich either the costliest or humblest furniture. This firm has not as a rule aimed at producing very large works, although occasional ones have been made; but it has incessantly striven for great perfection in the material and decoration of such pieces as come within the means of moderate people. Their power to do otherwise has been notably proved by the magnificent dessert service for Her Majesty, completed in 1862, the superb *tête-à-tête* service made for the Countess of Dudley, in 1867, and the still more important works, from an important point of view, the unrivalled pair of vases painted in the style of old Limogese enamels by the late Mr. Thomas Bott, which were first exhibited in 1871, and which must be regarded as among the greatest triumphs of the potter's art in this century.

“As in the earliest period of the manufacture—that is, in the days of Dr. Wall—the first point aimed at was perfection in material, the second beauty of form, and thirdly artistic excellence in the decoration; so at the present time these three qualifications receive equal attention. The enormous prices now given for

genuine specimens of old Worcester show how perfectly the aims of the makers were realised, and it is not too much to predict that the time will come when equal, if not greater, value will attach to the exquisite productions of the present day. A modification of Parian has lately become one of the great features of the Royal Porcelain Works, and is among the most striking novelties of the day. It is a variety of Parian of most delicate softness, having, instead of the creamy yellow of ordinary English Parian, an equally soft pearly grey, like ivory when freshly cut. The showroom at the Royal Porcelain Works at present is abundantly stocked with proofs of the assiduity and success with which Mr. Binns has devoted himself to a study of this most attractive feature in the world's history of pottery, and visitors will be struck with the talent that has caught the spirit, the poetry it may be said, of the Japanese Art; and without adopting its details, has applied it to our own subjects in a manner as to be equally pleasing to English or to Japanese tastes. The value of Japanese decorative Art was quickly appreciated by the French, it is only slowly working its way among us; but with such splendid illustrations of what can be done with it as those now issuing from the Royal Porcelain Works of Worcester, it is certain ere long to exercise a very important influence.

“An allusion has been made to the Limoges style of painting practised at these works with such remarkable success by the late Mr. Bott. Fortunately we find his son is imbued with the same taste, and although wanting in the matured skill of his father, bids fair to become in time quite as distinguished. There is something peculiarly pleasing in these grisaille pictures on the deep rich blue ground for which Worcester is so famous, and it would be a pity if, after having attained to such perfection under the late Mr. Bott, no effort had been made to train up other artists to the same work.

“The imitation of terra-cotta in a coloured porcelain has been carried to great perfection at these works as well as at those of Messrs. Minton; the statuettes draped in turquoise blue are

effective, and as novelties have had great success. The turquoise blue enamel glaze of the Worcester Works is especially fine and smooth, and its full depth and beauty have been well brought out by this new adaptation to the imitation of terra-cotta subjects.

“Another speciality in which the royal factory excels is the jewelling of porcelain. The most perfect illustration of this art ever produced was in all probability that before alluded to, the *tête-à-tête* service of the Countess of Dudley; many other beautiful but less elaborate specimens are to be seen in the magnificent and spacious show-room at the works. Unlike the French method of affixing under the glaze artificially formed jewels on gold leaf, every separate jewel on the Worcester porcelain is raised up after the *pâte-sur-pâte* method, on the body of the piece; this tedious process has, however, the very superior property of being true honest work which will endure any amount of wear. The artistic staff at the Royal Porcelain Works is not large, but it is characterised by earnestness and a thorough reliance upon the directing genius. Mr. Binns finds in Mr. E. Bejot and Mr. James Callowhill thorough supporters in his Japanese tastes. Mr. Bott, jun., and Mr. Thomas Callowhill, especially the latter, carry out the Limogese enamel style, while Mr. Hadley as chief modeller, Mr. Ranford as gilder, Mr. J. Rushton as figure-painter, and Mr. E. Probert Evans as manager of the clay department, make up a staff not easily beaten for talent, as their success fully proves. The chief novelties in style at these works for some time past are, however, the result of Mr. Binns’ own investigation; his perfect imitation of the adventuring porcelain of the Japanese is his latest triumph, and will in an likelihood lead the way to a discovery of the method by which the porcelain painters of Yedda produce that exquisite clouding of gold, as if the finest powder of gold were most delicately sprinkled over the surface like the bloom on a ripe plum. Some of the beautiful examples of this work shown in the Vienna Exhibition last year would be of the utmost value to our potters.”

"ENGLISH CERAMICS AND JEWELLERY AT VIENNA."

THE TIMES.

"VIENNA, June 4.

"One naturally expects to find something worth the looking at from the Worcester Porcelain Works. Nor are you disappointed. There are objects in two distinctly novel *genres* which Mr. Binns has worked out since he last had an opportunity of exhibiting. One is a new method of enamelling on pottery, figures in brown terra-cotta being draped in blue enamel. In its brilliant lustre the turquoise leaves nothing to desire, while the brown, with its warm red tinge, is an original shade discovered by accident, and of which Worcester preserves the secret. As for the effect of the combination, that is matter of opinion ; for myself I think it somewhat violent. There can be no question, however, that it has had a success, if one may judge by the sales which have already been effected ; and there can be still less a question about the artistic moulding of the figures. The decorations have been effected under the direction of Bejot. The other novelty is the ivory Japanese porcelain, and that, at least, is as beautiful as it is original in English ceramic art. The ivory has much the tint of the Satsuma, although Mr. Binns has arrived at the colour by a process of his own. It wants the little waving lines of the Japanese, but it imparts the same softness to the painting on it ; and then it has a decided superiority over the colder white of the Capo di Monte. The subjects are all from Japanese nature, animate and inanimate. The mouldings, gildings, and enamellings are steeped in the Japanese spirit. Lizards and dragons twine about the handles and coil themselves round the covers, couchant elephants and camels carry platters and tazzas in place of houdahs and packs. The shapes are all from Japan, octagons and hexagons, and cylindrical forms ; with open filagree work covered with native fruits and flowers. Again, you have a series illustrating the whole manufacture of pottery in China ; the wheel and the oven, the

glazing and painting, the mixing the clay and cobalt, and the enamel kilns. It is imitation, of course; yet it is imitation so full of invention that it may almost be pronounced original. Most conspicuous on the stand are the magnificent vases in opaque white enamel, after the Limoges; the subjects from the Norman conquest, after drawings by Maclise from the Bayeux Tapestry. Perhaps cheaply priced at £1,500, they have not as yet found a purchaser, but, as they have been exhibited already, they need not detain me. Even more costly, relatively, are a little cup and saucer richly jewelled in turquoise—fifty guineas. In a few days a complete boudoir service will be forthcoming, made at Worcester, as a gift to Lady Dudley. Among other things, perfect in form or workmanship, or in both, are some ‘pilgrims’ bottles,’ a triangular Capo di Monte inkstand, and, above all, some Japanese figures in Parian, where the draperies, enamelled in colours, have a flow and freedom not to be found in the native models.”—June 10, 1873.

THE STANDARD.

“Deferring my description of the foreign sections, it may be well here to conclude with a few words on the really splendid contents of the case from the Worcester Works. Here one feature is porcelain representing carved ivory in the Japanese style. The pierced work is very fine, and the good shapes are ornamented with birds and flowers in low colours and dead gold. One charming set of six, shows the history of pottery *à la Japon*, and a pair look exactly like polished ivory inlaid with gold and silver shells. Two turquoise vases with paintings of figure subjects are very good indeed in shape and workmanship, and a number of busts and statuettes in *faïence*, that is to say, enamel colours on brown clay in imitation of enamelled terra cotta, are greatly admired. Not the smallest feature of the case are vases described by you two years ago when they were shown at South Kensington. The style is Limoges enamel, and the designs are after Maclise, representing

the story of the Norman conquest, from the Bayeux Tapestry: The time occupied by the late Mr. Bott, the artist, in painting a pair of these magnificent works was two years, and they were worth the cost. A dessert service, ordered by the Queen, in pierced work, with gold and blue, is most commendable, and a *dejeuner* set in pearls and gold on a dark blue ground is one of the richest works ever seen, it being cheap indeed at £200. But in one sense not only the gem of the case—the gem of the Exhibition—is Lord Dudley's cup and saucer, already spoken of, in jewelled porcelain, the ground being gold adorned with turquoises and beautiful little medallions. No wonder this is shown in a morocco and velvet case, like a valuable bracelet or necklace.”
—May 21, 1873.

THE ILLUSTRATED LONDON NEWS.

“The Royal Worcester Porcelain Works—which may be styled the parent firm of modern English pottery, as Dr. Wall, who originally founded the Company, is known to have applied himself to the improvement of English ceramic art as early as 1751, or eight years previous to the date identified with Wedgwood's labours—has a large stall in the nave, opposite to Minton's magnificent display, a description of which I must reserve for next week. The articles exhibited here comprise the renowned Worcester enamels, jewelled, painted, and ivory porcelain, and Persian turquoise and terra-cotta ware. Of these the most striking, because the most novel, are those made of ivory porcelain enriched with gold, bronze, and colours in imitation of the Japanese style. Three pairs of vases of this new ware, which is a most perfect imitation of ivory, and was only invented some six months ago, have been bought by that well known connoisseur, Sir Richard Wallace, whose purchases in the British department have been most extensive. They have gold aventurine grounds, and are decorated with designs in bronze and gold illustrating the manu-

facture of pottery as carried on in China. There are the potter at his wheel and the oven for burning the china, the processes of glazing and painting the ware, the mixing of the clay and cobalt, the enamel kilns, and the making of cigars, all most admirably executed. Close by the side of these little chefs-d'œuvre is another pair of ivory vases, ornamented with bronzed birds, which has been purchased by the Earl of Dudley, who has also secured some handsome ivory pilgrim vases, with Japanese subjects of figures, birds, and flowers in bronze and colours, and some other lobe-shaped ones, designed by Hadley, with lilies and buds in relief, bronze and gilt. The rich royal blue déjeuner set, painted with subjects of Amorini, which was presented by the city of Worcester to the Countess of Dudley, on the occasion of her marriage, occupies, of course, a place of honour between the beautiful Harold and Norman vases. The latter, which everyone will recollect having seen at the London Exhibition of 1871, are embellished with admirable designs after Maclise, executed in white enamel on a dark blue ground, and representing different scenes in connection with the Norman invasion of England. They were much remarked by the members of the jury who inspected the British show in porcelain and ceramic ware the other day. The Countess de Girgenti has secured a pretty jewelled coffee set painted with wreaths of roses; the Crown Princess of Prussia a celadon lotus-leaf fruit-dish, with stem and frog inside; and the St. Petersburg museum a very striking pair of gourd bottles, with celadon grounds, and Japanese ornaments in gold. Of course the Royal Worcester Works are well represented in painted porcelain, among their specimens of which I must specially mention a pair of vases with blue grounds, embellished with miniature paintings of Gainsborough's famous "Blue Boy" and Duchess of Devonshire, and a déjeuner set painted with beautiful female heads in panels surrounded by flowers. There is, moreover, a charming triangular inkstand in Raphælesque porcelain; some bold statuesque ware in the style of Lucca della Robbia; and some sharp and skilfully-

modelled examples of Parian statuary. But praise cannot be awarded, except for skilful workmanship, to the figures, vases, brackets, and candlesticks of Persian turquoise and deep-red terracotta, which fill one side of the case. Professor Archer, has, I see, secured a head bracket and a pair of huge Grecian water-carriers, executed in this style, for the Edinburgh museum, but their appearance is far from pleasing to the eye. Of course this has been but an experiment, but it is one which I should not advise the Worcester Porcelain Works to re-commence. In every other respect, however, the exhibits of this enterprising Company are admirable, and can but increase their already high reputation on the Continent."—June 28, 1873.

EXTRACT FROM AN ARTICLE ON THE ADAPTATION
OF THE PRINCIPLES OF ORIENTAL ART TO
EUROPEAN MANUFACTURES.

"The influence of Eastern (chiefly Arabian) art upon Russian goldsmiths' work is manifested in the case of almost every display from Moscow or St. Petersburg, as in those of Auguste Strem and others.

"But not only upon metal work has the influence of Oriental art asserted itself, for on earthenware it is even more apparent. A few specimens of Persian pottery reached Europe a short time back (I exceedingly regret that no Porcelain is shown by the Persians in their Vienna exhibit), and several ornamental tiles have since come to hand, and these specimens have done more to alter the character of our earthen vessels than anything that has occurred for many years past. The ornament found on these Persian vessels was new, and was also appropriate to the objects on which it was wrought. The most enterprising potters, notably Minton of England, caught the novelty, and successfully applied the new form of ornament, and produced beautiful objects. This

was followed by certain French potters (particularly Collinot, and also to an extent by Th. Deck, both of Paris), producing works in the Arabian and Japanese styles, and now Minton shows examples in the style of the Chinese enamel vases and of works from other Eastern nations. Yet Minton does not simply copy the examples in enamel and apply them to earthenware or china, but he in most cases so modifies the ornament as to render it suitable to his individual wants. I do not think Minton's utilisation of Eastern art quite so clever, not being so original, as that of Christofle, nor of Barbedienne, yet it is good ; but for novelty combined with excellence I think that the Royal Works of Worcester must, this time, stand first.

"We must all feel glad that a works so renowned as the Worcester Factory has again taken its legitimate place amongst the chief Potters of the world ; but what is most interesting, in view of our present considerations, is the fact that all the finest of the Worcester works have been suggested by Oriental examples, and chiefly by works in Japanese laquer ; but the application is both new and clever, and almost ranks in merit with Christofle's applications of Japanese enamels."—*Standard*, Sept. 30, 1873.

THE END.

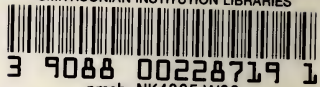


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